

Appendix E

Public Comments and Responses

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Air Quality		
...the South Shore Project must include provisions for sufficient prescribed fire notification systems. In the interest of public disclosure and concern for the residents of the south shore, the final BACMs must be made public through the newspaper and website, as well as notification to Barton Hospital, local doctors, and associated breathing help groups. In addition, the FS must install a telephone hotline to those identified as at-risk from multiple smoke incidents as is implemented in many areas (i.e. a —phone tree where people can sign up on a list to be called in advance of prescribed fires that may create smoke impacts in their area). For the more technically motivated, twitter, e-mail and other notification systems could be incorporated. We are glad to see the Forest Service working to improve these systems this year, however, much work remains and consistent application of such notification systems is needed. While the Forest Service currently has a fairly reliable notification system on its website, details of burning are not kept up to date, no predictions for number of days of each burn is provided, and the notification site is not accessible to those without internet access.		13-28, 14-28, 15-28, 16-28
Response: Thank you for your suggestions to improve the Lake Tahoe Basin Management Unit (LTBMU) service to the public. The LTBMU currently utilizes the following notification systems; telephone, local website, internet, and twitter. The LTBMU also updates its prescribed fire activities to include area, number of acres and expected number of days prescribed fire projects are expected to last. The public can contact the LTBMU and be placed on the appropriate call list.		
The Forest Service must analyze the smoke emissions generated by a range of pile burning, from the proposed levels (the high end') to most reduced levels (e.g. the “low end” where pile burning is only performed in locations where other options are not feasible or possible). This must be considered in terms of impacts to air quality human health standards.		13-27, 14-27, 15-27, 16-27
Response: Both action alternatives will be in compliance with Federal and State air quality standards. This is detailed in the Air Quality section of Chapter 3 of the EIS. The EIS explains in the Forest Vegetation section of Chapter 2 that any options for biomass utilization would be used rather than pile burning, when and where possible, for either action alternative. Burning piles would require a smoke management plan to be approved by El Dorado County Air Quality Management District and the California Air Resources Board, specifically to protect human health, as is disclosed in the Air Quality section in Chapter 3.		
Alternatives		
The Washoe Environmental Protection Department supports Alternative 3 as it provides the balance between the much needed fuel reduction treatments and protection of the natural and cultural resources.		3-1
Response: Thank you for your support of the project and of Alternative 3. The Forest Supervisor, as the responsible official, will make the choice of the alternative for implementation, based on the analysis of all of the effects in the FEIS. Both of the action alternatives are designed to reduce the risk of wildfire to lives, property, and the environment.		

Subject	Comment and Response	Commenter-Comment#
	<p>Page 2-39 thru 2-43 identifies alternatives that were considered but eliminated from further consideration. Many of these proposed alternatives appear viable and sound and are primarily eliminated due to the very restricted parameters that define the project. Especially relevant is the requirement to meet the demands of the Community Wildfire Protection Plans. These Plans were designed to protect homes and other urban development without considering the management of the larger landscape. Community Wildfire Protection Plans to a large extent are self serving and forgo the interests of a larger public. The Healthy Forest Restoration Act authorizes the treatments to achieve the recommendations in Community Wildfire Protection Plans, but does not require that they be fully attained. Therefore, some of the Alternatives considered and rejected, either individually or collectively, should be considered in order to provide a greater range of alternatives to the project. As an example, it may be of greater benefit to the forest to treat areas outside of the defense and threat zone where crown fire is most likely to occur and be devastating, than to treat lands adjacent to Highway or road corridors as is proposed.</p> <p><u>Response:</u> <i>The Healthy Forest Restoration Act (HFRA) authorizes federal projects for reducing fuels and increasing forest health within the WUI. Based on meeting the requirements of HFRA the project treatment boundaries were confined to the WUI and are consistent with CWPPs and the Forest Plan. The project interdisciplinary team studied numerous alternatives but eliminated the ones which did not meet the purpose and need or HFRA specifications. Chapter 2, the section titled "Alternatives Considered but Eliminated from Detailed Study," contains the rationale for elimination of those alternatives. Treatments beyond the WUI would be outside of the scope for this project. It is agreed that areas beyond the WUI defense and threat zones may benefit from treatments to provide for a healthier and more resilient forest. There are other vegetation, fuels, fire, and habitat restoration projects currently planned or being implemented (e.g. Big Meadow Restoration, High Meadow Restoration, Ecosystem Underburn, etc) that address other areas of concern.</i></p>	6-2
	<p>As a resident of the Myers area we would like to express our support of Alternative #2. Any treatment level less than this will leave the entire South Shore vulnerable to catastrophic wildfire and the accompanying impacts to lives, properties and the environment.</p> <p><u>Response:</u> <i>Thank you for your support for this project. Both of the action alternatives are designed to reduce the risk of wildfire to lives, property, and the environment. The Forest Supervisor, as the responsible official, will make the choice of the alternative for implementation, based on the analysis of all of the effects in the EIS/EIR.</i></p>	7-1
	<p>As the Fuels Manager for the Tahoe Douglas Fire Protection District, I urge to consider Alternative #2 as the best option for protection of both the communities of the South Shore and the environment.</p> <p><u>Response:</u> <i>Thank you for your support of the project and of Alternative 2. The Forest Supervisor, as the responsible official, will make the choice of the alternative for implementation, based on the analysis of all of the effects in the EIS/EIR. Both of the action alternatives are designed to reduce the risk of wildfire to lives, property, and the environment.</i></p>	9-1
	<p>Cal Fire supports Alternative 2 as it provides the greatest positive management impact to the project area. Cal Fire supports Alternative 3 as the next viable alternative, providing the next best acceptable positive management of the project area. Cal Fire cannot and does not support Alternative 1....</p> <p><u>Response:</u> <i>Thank you for your support of the action alternatives. The Forest Supervisor, as the responsible official, will make the choice of the alternative for implementation, based on the analysis of all of the effects in the EIS/EIR. Both of the action alternatives are designed to reduce the risk of wildfire to lives, property, and the environment.</i></p>	10-1

Subject	Comment and Response	Commenter-Comment#
	<p>...the area in and around the Bridge Tract Forest Service Residence Tract would not be covered in the proposed alternative number 3. This is a serious mistake as is evident by only a cursory review of the area. There are numerous stands of trees adjacent to the residences containing diseased and dying trees. The forest floor in nearby areas is choked with downed trees and is a disaster that could unfold at any time. For example, a stand of trees upstream and near the bridge is very crowded and needs serious thinning. The stream bed in this area also contains a large logjam that only adds fuel to any fire that would occur. The likely prospect of a fire "crowning" would complicate fire suppression efforts and add significantly to the danger of people being trapped in the narrow valley. Please adopt alternative 2 which addresses these concerns.</p> <p><u>Response:</u> Upon review of your comment by the interdisciplinary team, a portion of treatment around Bridge Tract (shown in Alternative 2 maps), is now incorporated in Alternative 3. The portion added back in balances defense zone standards for fire suppression and fuel loading with habitat needs (for spotted owl). Treatments for this have been analyzed in Alternative 2, and is consistent with the LTBMU Forest Plan (as amended).</p>	11-1
	<p>[See comments of letter writer 11]</p> <p><u>Response:</u></p>	17-1
	<p>[See comments of letter writer 11]</p> <p><u>Response:</u></p>	18-1
	<p>[See comments of letter writer 11]</p> <p><u>Response:</u></p>	19-1
	<p>[See comments of letter writer 11]</p> <p><u>Response:</u></p>	20-1
Economics		
	<p>Please include a cost estimate for a 30"-limit mechanical thin, including, at a minimum, the following with respect to the Forest Service's net expenses (i.e., not the timber contractor): a) administrative costs to the USFS pertaining to analysis and appeals; b) costs to the USFS of sale preparation and administration; c) PER ACRE costs to the USFS of slash piling and burning; d) PER ACRE costs to the USFS of brush maintenance following the mechanical thinning as a result of canopy reduction (this cost must be included, regardless of whether brush maintenance is required only 3-5 years after mechanical thinning or 10-15 years after mechanical thinning; and no similar cost would be applied to non-commercial thinning since essentially no measurable canopy reduction would occur); e) the administrative costs to the USFS pertaining to analysis and planning for the slash clean-up and brush maintenance projects following the mechanical thinning; f) the projected timber sales receipts to the USFS from the timber sale; and g) the total timber volume of the timber sale (in board feet of sawtimber, as well as tons of biomass). Please include citations to actual projects for all estimates.</p> <p><u>Response:</u> The economic analysis that was completed for this project was designed with a 30" diameter breast height limit for mechanical thinning (see Chapter 3, Economics section .) Volumes proposed for removal and acres proposed for various treatments were used as the basis for determining the Total Revenue, Total Cost, Present Net Worth, and the Benefit Cost Ratio. The following revenues and expenses were included in the analysis: revenue generated from sawlog and biomass removal; administrative costs to the Forest Service pertaining to analysis, , sale preparation and administration; costs of road reconstruction and temporary road opening/closing, mechanical harvest costs, mastication costs, small tree thinning costs, hand piling slash costs, pile burning costs, and prescribed underburning costs. Future maintenance costs (estimated at 20 years after treatment) for hand and mechanically treated units were included in the economic analysis in the project record.</p>	1-16

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	<p>Page 2-5 describes proposed mechanical thinning: "The type of mechanical equipment used for thinning operations would depend on vegetation removal needs, operational feasibility, and cost efficiency." If you retain cost efficiency as a major criteria you will wind up leaving more slash, cutting more large trees and generally short circuiting your fuel reduction and forest health objectives. The "cost effectiveness" objectives are diametrically opposed to the fuels and forest health objectives.</p> <p><u>Response:</u> <i>The project purpose and need is not driven by maximizing the economic value of trees or solely the economic consideration of cost efficiency. The project proposes the use of a range of harvest systems to address the issue of cost efficiency where this would not result in an adverse resource effect. An example of this would be the use of a less expensive whole tree removal system in lieu of a cut-to-length removal system where the effects of a whole tree system do not adversely affect soil or water quality resources. It is not the intent nor has the project been designed to leave more slash or cut larger trees to gain economic efficiencies. Cost effectiveness objectives are only considered where they compliment fuels and forest health objectives.</i></p>	12-6
Environmental Laws		
	<p>This project is clearly attempting to implement the July 2004 letter from the Regional Forester requiring forest managers to reduce stand density to a level that will not exceed 60% of SDI-Max for at least 20 years after thinning. However, the DEIS does not divulge that it is implementing the directive in this letter, which is under litigation in another case currently. Instead, the DEIS seeks to implement the letter's mandates without admitting this fact. Effectively, the Forest Service seeks to implement this letter as if it is a binding forest plan amendment, despite the fact that no EIS has ever been prepared on the massive landscape-level adverse impacts that would result from implementation of the letter across the Sierra Nevada national forests.</p> <p><u>Response:</u> <i>The project purpose and need is defined in Chapter 1, under Purpose and Need # 2 (Forest Health). Chapter 3, Forest Vegetation section, under the Stand Density heading, discusses the need to reduce stand density index in order to meet the project purpose and need. Project silviculturist field observation, and stand exams provided information on the existing conditions; research literature from Long (1985) and Fettig et al. (2007), and field experience formed the basis for defining desired conditions to meet the project purpose and need. The EIS does not reference the Regional Forester letter because the Regional Forester letter was not the basis for defining the desired forest structure and density for the South Shore project.</i></p>	1-2
	<p>The Forest Service violated NEPA by failing to prepare an EIS before implementing the letter, and the agency violated NFMA and the Appeals Reform Act by effectively amending the Sierra Nevada Forest Plan Amendment without going through proper public notice, comment, and appeal procedures for such an amendment.</p> <p><u>Response:</u> <i>This letter does not form the basis for prescription design for the South Shore project; therefore, this comment is outside the scope of the project.</i></p>	1-3

Subject	Comment and Response	Commenter-Comment#
	<p>The project as designed violates the Healthy Forest Restoration Act (HFRA) because it would needlessly remove thousands of large old-growth trees up to 30 inches in diameter. The 2001 Sierra Nevada Forest Plan Amendment FEIS (Vol. 2, Ch. 3, part 3.2, p. 114, Table 3.2a) shows that, in eastside pine forest, trees 21" dbh are 150 years old on average on productive sites and are 200 years old on average on low productivity sites (Dunning Site Class 4-6), while trees 30" dbh are 230 years old on average on productive sites and 300 years old on average on low productivity sites. In mixed-conifer forests on low productivity sites, trees 29" dbh are 323 years old on average, and white fir 30" dbh are 301 years old on average on low productivity sites.</p> <p><u>Response:</u> Please refer Treatment Prescriptions –Guidelines section of Chapter 2, where it describes that targeted tree thinning includes removal of small diameter ladder-fuel trees and retention of the larger diameter trees. Large trees are a priority for retention, small trees are a priority for removal. Trees equal to or greater than 30" dbh that would be removed are hazard trees or those that cannot be avoided for operability. Most trees to be removed are 20" dbh or less; only 39 stands in Alternative 3 and 48 stands in Alternative 2 would require removal of trees between 20-30" dbh to meet desired density conditions.</p>	1-29
	<p>...(EPA) has reviewed the...document pursuant to the National Environmental Policy Act..., Council on Environmental Quality...regulations..., and our NEPA review authority under Section 309 of the Clean Air Act.....We have rated the DEIS as Environmental Concerns - Insufficient Information...due to our concerns regarding water quality monitoring, cumulative watershed effects, and impacts to stream environment zones....In light of these concerns, we recommend the Forest Service and Lahontan RWQCB consider implementation of an alternative that reduces, to the maximum extent feasible, adverse effects on SEZs and watersheds already over the cumulative watershed effects threshold.</p> <p><u>Response:</u> Clarification and additional details for resource protection measures (mitigation measures) and monitoring elements, including adaptive management, have been incorporated in the FEIS in response to public comments and as a result of coordination between LTBMU, TRPA, and Lahontan Water Board staff. The project resource protection measures, BMPs and monitoring elements are expected to prevent significant effects to water quality and beneficial uses, which is supported by the analysis included in the FEIS. See Chapters 2, 3, 4, and Appendix B.</p>	2-1

Subject	Comment and Response	Commenter-Comment#
	<p>The federal courts have ruled that the 2004 Framework forest plan is illegal under NEPA. You are using the wrong forest plan. This project must be governed by the 2001 Framework FEIS and ROD.</p> <p><u>Response:</u> <i>The District Court has not issued any injunction against projects implemented under the direction in the 2004 Framework.</i></p>	3-7
	<p>Page 1-11 provides a list of significant issues expressed by the public that were determined relevant to the project. It is stated here that other issues expressed by the public were screened out as non-significant. Disposition of these non-significant issues are stated to be in the project planning records. It would be valuable to reviewers to have these non-significant issues listed in the DEIS.</p> <p><u>Response:</u> <i>Non-significant issues are not required to be included in the FEIS. They are tracked in the project record, as required by NEPA.</i></p>	6-4
	<p>The DEIS/DEIR states (p. 2-48) that MIS impacts are judged by large-scale changes in bioregional trends versus trends in the analysis area or at the forest scale. We strongly disagree with the assertion that monitoring for declines at the bioregional scale would be sufficient to prevent a loss of diversity under NFMA. If you ever had a range-wide impact it would be too late. This is a scientifically flawed concept that violates existing federal laws protecting species diversity under NFMA.</p> <p><u>Response:</u> <i>See Chapter 3, MIS section for a discussion of the interaction of the bioregional and local scale for effects. Habitat effects can be analyzed at the project scale, to insure that available suitable habitat is maintained, across the bioregion. For species with a range extending through the bioregion, monitoring at the bioregion, combined with insuring habitat is available throughout the species range would allow coordinated action rather than have segmented monitoring that would fail to measure changes.</i></p>	13-31, 14-31, 15-31, 16-31

Subject	Comment and Response	Commenter-Comment#
	<p>The South Shore Project is first in a host of projects that are planned to go forward over the next decade. See USDA LTBMU 2007 (Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy....the South Shore Project is a component of this larger project, presented and discussed in the 2007 Strategy, but never previously analyzed for environmental impacts. Under CEQA and NEPA, the cumulative impacts of this larger project must be analyzed. For example, will the techniques and monitoring approach proposed in the South Shore project be repeated for future projects? What are the overall impacts to water quality and the Tahoe environment of converting this much acreage to highly managed forests?</p> <p><u>Response:</u> <i>The Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy is what it purports to be; a strategy. The strategy as a whole is not reasonably foreseeable, and there is no valid method to estimate effects where locations are vague, timing is unknown, specific activities and their effects are unknown, and funding is unknown. The Strategy is not a site-specific project; and depends on subsequent site-specific decisions to meet those objectives. South Shore is a site-specific project, with on the-ground activities expected to occur. Whether the methods used for South Shore would be used in other projects would depend on the site-specific applicability for those projects and the success of South Shore in meeting the purpose and need for the project. Cumulative effects analysis is required to evaluate past, present, and reasonably foreseeable effects; a strategy is not site-specific enough to produce measurable effects. The South Shore EIS clearly defines the scope for cumulative effects, both spatially and temporally.</i></p> <p><i>Analysis of cumulative watershed effects using HUC 7 watersheds for spatial areas of analysis is a standard method, supported in the literature. All 18 HUC 7 watersheds with project units are analyzed for cumulative effects, along with all of the past, presently occurring, and reasonably foreseeable projects, whether they are included in the "Fuel Reduction and Wildfire Prevention Strategy" or not (See Appendix A). Because there are no significant cumulative effects projected in any of these watersheds from project implementation when combined with all of the past, present, or reasonably foreseeable effects, there would also be no significant cumulative effects to Lake Tahoe itself.</i></p>	13-8, 14-8, 15-8, 16-8
	<p>As discussed in a recent TRPA Board packet, the Fire Commission recommendations call for a single environmental analysis and review process (e.g. EIS/EIR) to reach agreement on project specifications, permit conditions, (if applicable), and monitoring for fuel reduction projects, which agencies may rely on in addressing individual projects....the South Shore Project is proposed to go forward, yet there appears to be no mechanism whereby the cumulative effects of fuel reduction on 68,000 acres in the Basin will be addressed. While it is true that the Forest Service and Lahontan have prepared an EIS/EIR for this Project, the document does not purport to analyze implementation of the overall fuel reduction Strategy, which is certainly a foreseeable future activity under CEQA and NEPA.</p> <p><u>Response:</u> <i>The overall fuel reduction strategy is not a site-specific project, therefore, unless or until some portions of it become a site-specific project proposal, it is not subject to NEPA or CEQA. While 68,000 acres may have been identified as possibly needing fuel reduction, it is not a proposal that is sufficiently specific to analyze effects. The activities that are past, present, or reasonably foreseeable have been included in the cumulative effects analysis for South Shore, please refer to Appendix A for a listing of these activities. (Also see response to comment 8 from commenter 13).</i></p>	13-9, 14-9, 15-9, 16-9

Subject	Comment and Response	Commenter-Comment#
	<p>The South Shore Project does not identify the significant impacts to Lake water quality and to Basin Plan beneficial uses that may occur due to the planned fuel reduction activities, in conjunction with the overall fuel reduction Strategy being implemented by the Forest Service in the Basin. Under CEQA, this failure has a consequential result, which is that the lead agency Lahontan has not analyzed and required adoption of all feasible mitigation measures that might avoid or substantially lessen these potentially significant impacts.</p> <p><u>Response:</u> <i>The EIS includes an analysis of the cumulative watershed impacts to water quality and riparian areas within the South Shore Analysis area in Chapter 3 section D. The water quality requirements of the Lahontan Water Board in the Basin Plan apply to this project and are shown in Table3-60. With the application of project design measures and BMPs identified in chapter two and appendix C these water quality requirements would be met. In addition, see response to comment 13-2.</i></p>	13-10, 14-10, 15-10, 16-10
	<p>The Project does not comply with the Basin Plan. Under Water Code § 13269(a)(1) a project approved under a waiver must be —consistent with any applicable state or regional water quality control plan. Here, the Forest Service and Lahontan cannot make this finding, particularly in relation to the overall approximate 68,000 acres within the Tahoe Basin that are proposed for fuel reduction activities.</p> <p><u>Response:</u> <i>The Final EIS discloses that there are no significant impacts as a result of the implementation of this project, The permitting process with the Lahontan Water Board will necessarily conform to their requirements for water quality under the authority of the Clean Water Act.</i></p>	13-25, 14-25, 15-25, 16-25

Subject	Comment and Response	Commenter-Comment#
Fire		
<p>The Fire/Fuels section of the DEIS states a goal of 15 tons per acre of surface fuel. However, the DEIS fails to identify the current level of surface fuel in the size classes relevant to fire behavior (fireline intensity, rate of spread, and flame length), choosing instead to lump all downed woody material over 3 inches in diameter into one category. The Forest Service's own science clearly states that this is baseless and inaccurate. Brown et al. (2003) shows that downed woody material over 8 or 10 inches in diameter has almost zero effect on fire behavior. Thus, the EIS must show the current level of surface fuel 0-3 diameter and 3-10 diameter, as recommended by Brown et al. (2003), in order to meaningfully evaluate current conditions with respect to fire....Further, the DEIS states that existing large snags would be removed in order to prevent them from becoming surface fuel. However, the DEIS fails to explain the scientific basis for removing large snags when the Forest Service's own science clearly shows that, if they fall, large logs are not a fire hazard. Moreover, the DEIS fails to divulge the fact that large snags, on average, take decades to fall, and provides no data on the likelihood of existing large snags falling over the next 10-20 years.</p> <p>Response: See Existing Conditions-Surface Fuel Loads in the Fire Behavior and Fuels section in Chapter 3. The parameters for fire behavior modeling are discussed, including the definition of surface fuels as 0-3 inches that were used for fire behavior modeling purposes. Table 3-4 displays the average fuel loads by size classes that are meaningful for fire behavior, using standardized fire behavior models. Fuels 3" and greater diameter are considered 1000 hour-plus fuels, which gives a conservative analysis for the effect of larger material on fire behavior. Larger materials influence resistance to control, rather than rates of spread. Fire behavior modeling considers additional factors, including the height to live crown and crown bulk density, rather than more divisions in ground fuel sizes, in order to reflect the complexity found in the factors that influence wildfire behavior. See Chapter 3 – Direct and Indirect Environmental Effects for a discussion of the expected results for all of the alternatives. We have further clarified our rationale in the FEIS to include the following information as described in Chapter 2 Treatment Prescriptions, Rationale Used in Developing Alternative 2:</p> <p>“Fuel models (Anderson, H.E, 1982) are used to estimate fire behavior, are applied when using some fire behavior models, and used as a tool for determining fuels treatments. Stands that have representative fuel models with fuel loads that are less than 6 tons per acre in the 0” to 3.0” size classes tend to have a surface fire type of fire behavior with low to moderate torching.</p> <p>Objectives of the treatment are to remove surface fuels, such as down trees, to achieve a maximum residual surface fuel load of 10 tons per acre. In areas where stream zones or other wildlife habitat require a higher component of large down wood, a maximum of 15 tons per acre is acceptable. The desired fuel loads of 10 tons per acre is based on having up to approximately 4 tons per acre in the 0” to 3.0” size classes and allowing for approximately 6 tons of larger down logs per acre..</p> <p>This range is also described as the “optimum of coarse woody debris for providing acceptable risks of fire hazard and fire severity while providing desirable quantities for soil productivity, soil protection, and wildlife needs” (Brown et al, 2003).”</p> <p>Chapter 2, Treatment Prescriptions –Guidelines section specifies the priority for retention of large logs (greater than 20” dbh) in keeping with the Forest Plan for wildlife habitat; see Chapter 2 resource protection measures for both Fuels and Vegetation and Wildlife. As the comment states, snags may stand for decades, and because the rate and timing of snag fall is not predictable, it is not included in the EIS.</p>	1-8	

Subject	Comment and Response	Commenter-Comment#
	<p>...the Forest Service allowed slash piles from thinning to sit unburned for several years prior to the 2007 Angora fire in South Lake Tahoe, and that these areas with remaining slash piles burned at very high severity (active crown fire) immediately adjacent to homes. The only thing that appears to be guaranteed by the DEIS is the removal of mature trees over 14 inches in diameter, since it is consistent with the economic self-interest of both the timber sale contractor and the Forest Service (which keeps much of the timber sale receipts) to do this. However, the portions of the project that would actually reduce the small-diameter material that determines fire intensity and severity—portions of the project that cost money to implement and do not generate revenue—do not appear to be guaranteed at all. This means that the Forest Service could dramatically increase fire severity in thinned areas by increasing surface fuels. This threat is not analyzed in the DEIS.</p> <p>Response: <i>The purpose of the South Shore project is not for economic gain. Thinning of all size class trees, including hand and mechanical treatments are done through a variety of contract methods that result with all thinning treatments performed within the same entry. Therefore, the thinning of all size classes of trees would be guaranteed. All treatments would be done in order to meet the desired conditions and objectives. The South Shore project is designed to decrease fuel loads, both surface fuels and ladder fuels, and restore forest health; see purpose and need, Chapter 1. The effects of hand thinning are discussed in Chapter 3 – Direct and Indirect Environmental Consequences. With hand thinning, surface fuel loads are increased temporarily until the piles are burned. After pile burning, however, the fuel loads are significantly reduced. The thinning treatments have been proven to be effective within the LTBMU, specifically, and discussed in “Effects of fuel treatments on fire severity in an area of wildland-urban interface, Angora Fire, Lake Tahoe Basin, California” (Safford et al. 2009). A threat of increased fire severity in thinned areas is not analyzed because it is not expected to occur, it would be contrary to the objectives, purpose and need for the project.</i></p>	1-27
	<p>The Forest Service should fully consider an alternative that only thins smaller trees and brush in the defensible space zone, offering this service to homeowners who wish to participate (thinning would occur on private land (for willing homeowners) and on public lands within 200 feet of homes). This would actually protect homes, as proven by the example of the Idaho town of Secesh, which survived a high-severity fire that dropped down to a low severity fire when it reached the homes and went right through the town without burning a single home (see attached 2008 article in the Idaho-Statesman).</p> <p>Response: <i>An alternative was considered in response to this comment. Chapter 2 Alternatives Considered but Eliminated From Detailed Study considers the consequences of only thinning smaller trees and brush in the defensible space zone and on public lands within 200 feet of homes. As detailed in Chapter 2, limiting the proposed action to this alternative does not meet the purpose and need for forest health, SEZ restoration, and would not treat enough of the WUI to provide safe and effective fire suppression.</i></p>	1-25

Subject	Comment and Response	Commenter-Comment#
	<p>The DEIS claims to seek to protect homes from fire, but fails to divulge the fact that the Forest Service's own top scientist on this issue, Dr. Jack Cohen, concludes that the only effective way to protect homes is to reduce the combustibility of the home itself and to create defensible space within at most 100-200 feet of each individual home (see Dr. Cohen's research at www.firelab.org). The DEIS ignores this science and proposes projects far from individual homes, which will only give homeowners a false sense of security and divert scarce resources from the defensible space zone (within 100-200 feet of homes) to an unnecessary and counter-productive logging project far from homes, wherein thousands of fire-resistant mature trees will be removed. If anything, this will leave homes more vulnerable.</p> <p><u>Response:</u> This website reference to Dr Cohen's research for "Protecting Your Home From Wildfire" focuses on what actions homeowners can take to protect their home from fire, but not what happens beyond the homeowners property boundary. The statement above regarding "the only effective way to protect homes..." is not supported by this website. <i>The project is designed to treat fuels within the three WUI zones on National Forest lands, much of which is adjacent to, and within 100-200 ft, of homes, schools, and businesses. While it is true that defensible space for homes is critical to effectively change fire behavior within neighborhoods, the Forest Service has jurisdiction only on National Forest land, and cannot mandate that homeowners provide defensible space on private property. The local fire protection district(s), along with city, county and state governments have the authority to enforce building codes and defensible space on private property within their respective districts. See Executive Summary, Purpose and Need for Action, Chapter 1 Purpose and Need for Action, Forest Plan Direction, Public Involvement, and Decision Framework for a discussion of the Forest Service jurisdiction. The research findings used in the Sierra Nevada Forest Plan Amendment (SNFPA, 2004) are the basis for designation of the WUI, and findings from Safford et al. (2009) conclude that that prior fuel treatments within the Angora Fire perimeter generally performed as designed and substantially changed fire behavior and reduced subsequent fire effects to forest vegetation. See Chapter 2, Treatment Prescriptions; the intent of the South Shore project is to retain fire-resistant mature trees, and thin out smaller ladder-fuel trees.</i></p>	1-24

Subject	Comment and Response	Commenter-Comment#
	<p>The Fire/Fuels section of the DEIS claims that much of the project area is likely to burn at high severity by virtue of the fact that it is Condition Class 3, meaning that it has missed more than 2 fire return intervals. However, actual data does not support this assumption. Condition Class 3 areas burn mostly at low and moderate severity, and do not burn more severely than Condition Class 2 areas (Odion and Hanson 2006, Odion and Hanson 2008)....The claims in the DEIS about Condition Class and fire are flatly inaccurate.</p> <p><u>Response:</u> <i>The FEIS does not claim this. The discussion of Condition Classes found in Existing Conditions of the Fire and Fuels section of Chapter 3 in the FEIS provided as background information for a classification of the existing conditions, rather than as a basis for modeling fire behavior. The referenced materials do not provide percentile weather, topographical features or fuel moistures (live and dead) which are factors influencing fire severity.</i></p>	1-9

Subject	Comment and Response	Commenter-Comment#
	<p>Recent research provides evidence that seriously questions the very basis for thinning and its assumed effectiveness. Rhodes and Baker (2008) found that, based upon the fire rotation interval for high severity fire, and assuming an effectiveness period of 20 years for a mechanically-thinned area (i.e., before it would need to be treated again to maintain effectiveness from a fire/fuels perspective), the probability of a thinned area encountering a high severity fire patch during the 20-year effectiveness period (assuming for the sake of argument that the thinning actually does reduce fire severity during this period) is only about 3.3% in California's forests. It would be less than 2% if an 11-year thinning effectiveness period is assumed (Rhodes and Baker 2008). This means that, in order to have a 50% chance of having the thinned area reduce the severity of a fire patch that would have otherwise been high severity, the thinned area would have to be re-thinned every 20 years for about 300 years (see Rhodes and Baker 2008). Please fully analyze the implications of this new data, and please also fully divulge whether you intend to re-thin this area over and over again every couple of decades or so for the next three centuries or so in order to have a reasonable probability of having the thinning area ACTUALLY prevent high severity fire from occurring in the thinned area. If so, please fully analyze the cumulative environmental impacts on wildlife, soils, and watersheds from such repeated mechanical activities on this site. If not, please divulge the fact that the probability that the thinned area will NOT encounter a high severity fire area is about 97% or greater, and that your thinning activities are extremely unlikely to be effective in any tangible or meaningful way for fuels/fire management.</p> <p>Response: <i>Thinning needs to occur within the WUI regardless of a predicted timeframe for when a wildfire might occur. The use of probability of a fire occurrence is inconsistent with this projects purpose and need that includes fuels reduction and forest health as objectives. This is described in Chapter 1. While the frequency of wildfire occurrence over a prolonged time period may be low, the risk to resources, lives, and property is high under the no action alternative, as discussed in the alternatives comparison in the Fires and Fuels section of Chapter 3. It is well known and documented that thinning is both effective at reducing ladder fuels and improving residual tree vigor, stand health and forest health (See Chapter 3 Vegetation and Fuels analysis). Safford et al. (2009) concludes that that prior fuel treatments within the Angora Fire perimeter generally performed as designed and substantially changed fire behavior and subsequent fire effects to forest vegetation. This research supports Forest Service management experience indicating that fuel and vegetation treatments being carried out in Lake Tahoe would be effective in reducing fire severity and increasing forest resilience. It is expected that certain areas of the project would require maintenance treatment (thinning and fuel reduction) when necessary (10-20 years) utilizing mechanical treatment or prescribed fire (Chapter 3 Forest Vegetation, Density). However, specific areas requiring maintenance would not be known for several years. Events such as fire, drought, and insect outbreak would make it impossible to determine future maintenance needs and therefore makes it infeasible to analyze cumulative impacts to resources.</i></p>	1-13
	<p>The FEIS should include a summary of the [Community Wildfire Protection Plans] and describe actions being taken by the communities and Forest Service to ensure fire protection efforts are consistent, complementary and fully integrated. For instance, describe whether local housing and fire safety ordinances are consistent with the effort to reduce and minimize excessive fuels. We support the project component that would provide environmental education for the community as part of the South Shore Fuel Reduction and Healthy Forest Restoration Project (p. 2-23). We recommend this educational program include information on what homeowners and recreational visitors can do to protect their homes and recreational areas, and opportunities for public involvement in the future planning, design, and implementation of the proposed project.</p> <p>Response: <i>A summary of Community Wildfire Protection Plans (CWPP) is outside the scope of the project. The LTBMU coordinated and collaborated with the affected fire departments on treatment design and location which is reflected in the identified treatment. See Chapter 1, Background, LTBMU Fuels and Healthy Forest Restoration Direction. Public education efforts are ongoing, both within and in addition to the South Shore project.</i></p>	2-6

Subject	Comment and Response	Commenter-Comment#
	<p>Pg. 2-8 Prescribed Fire. States that burn piles will be located up to 10 feet from the edge of ephemeral streams and then two bullets down goes on to state the burn piles will be permitted up to the edge of ephemeral streams. Given the lack of science on this topic, the location of burn piles on the edge of ephemeral streams (streams capable of transporting sediment to other streams) or up to 10 feet from ephemeral streams does not seem adequate to provide protection to water quality. TRPA would like to further discuss this issue to work out alternatives and BMPs to ensure protection of water quality.</p> <p><u>Response:</u> This is an error, which is corrected in the FEIS. The bullet that states that burn piles will be permitted up to 10 feet from the edge of ephemeral channels is correct, the other bullet has been removed. This distance was agreed upon by Lahontan Water Board, TRPA, and LTBMU staff as adequate protection for ephemeral channel features and water quality. In addition, subsequent monitoring as described in Chapter 4 will be used to ensure that these resource protection measures provide adequate protection, and allows for adaptive management to change these measures if monitoring indicates a need.</p>	3-2
	<p>It seems likely that treatment in the Echo Lake area will result in the piling and burning of material. If...(that) is correct, what steps will be taken to ensure that those prescribed burns do not spread to surrounding forest land or recreation residences and how was that effect evaluated in the Draft EIS/EIR? Will a burn plan with adequate safety measures be prepared? Shouldn't a representative burn plan be included in the document for public review and comment? This plan should acknowledge the limited means of containing a fire in the Echo Lake area due to limited access while providing details on the methods that would be employed....It should also identify the time of year that burning would occur. While burning with snow on the ground is often desirable, that is typically the most difficult time to access the Echo Lake area.</p> <p><u>Response:</u> Prescribed Burn Plans are required, and are prepared, for all prescribed fire treatments. These plans describe the time of year, safety precautions (firefighters and public), environmental prescription, fire behavior prescription, and expected fire containment resources needed. Burn Plans are not required as part of an EIS under NEPA, they are part of project implementation.</p>	4-3
	<p>I understand that temporary closures of work areas will be required. Additionally, it appears that closure periods would typically occur during the recreation off-season, which is greatly appreciated. However, it is unclear how this will be carried out in relation to the actual thinning process versus the burning process. While not explicitly described, it is typical for piles to be left for one to two years prior to burning. Areas under those piles will obviously be inaccessible, but how will the surrounding areas be treated in regard to closures? Similarly, how will appropriate locations for piles, given that they will likely be present for multiple years prior to burning, be determined?</p> <p><u>Response:</u> Typically work area closures are put in place during thinning operations when there is a specific need to do so for public safety. Area closures for burning could also be used for public safety. Location of piles for burning are determined on a site by site basis and take in to account environmental conditions and effects, as well as public and firefighter safety. See the Recreation resource protection measures of Chapter 2 for the means to reduce conflicts with recreation use. It is expected that normal recreational use of the Forest would continue in the areas surrounding burn piles when burning is not taking place.</p>	4-4

Subject	Comment and Response	Committer-Comment#
	<p>In response to many of the issues identified...a Best Management Practice should be added that requires coordination with cabin owners/recreation residence permit holders that are in close proximity to treatment areas during development of site specific treatments. This would allow for site specific treatments to be designed in a way that: (1) meets the purpose and need of the project; (2) capitalizes on the cabin owner/permittee's knowledge of the landscape and site-specific conditions; (3) fulfills the existing commitment to coordinate temporary closures to the extent feasible; (4) coordinates with other LTBMU management efforts...(5) promotes a shared responsibility for long-term stewardship that can be carried out, in part, during the implementation of each permittee's annual maintenance activities.</p> <p><u>Response:</u> The Forest Service would conduct tree and boundary marking in order to meet stand specific prescriptions. Marking prescriptions around cabins would take into account numerous factors including tree health and special tree characteristics. Area closures would occur during thinning treatments to ensure public and operator safety. Efforts would be made to adjust timing for closures to avoid high recreation use periods when practical. Closure information would be disseminated to cabin owners prior to the closure. To ensure ample notification, recreation residence cabin owners would be notified of treatment timing through the Forest Service special uses coordinator. Scoping for the South Shore project included recreation residence associations, to provide an opportunity for cabin owners to provide input for the project. Recreation residence special use permits also provide an opportunity for shared responsibility for stewardship in these areas during discussions with the special use coordinator for annual maintenance activities.</p>	4-5
	<p>Please describe in more detail how specific areas were identified for treatment. For example, lower Echo Lake is included while upper Echo Lake is not, yet, to a certain extent, there are conditions on upper Echo Lake similar to those found on lower Echo Lake.</p> <p><u>Response:</u> Treatment areas were identified through interdisciplinary team review starting in 2006. Scoping included the association presidents of all recreation residence tracts, specifically so that there was an opportunity for recreation residence owners to express any concerns they may have had. Notice was also provided in the local paper for meetings and summer field trips to inform the public about the project. No concerns from Upper Echo Lake were expressed during scoping. The South Shore interdisciplinary team evaluated the possibility to include Upper Echo Lake in the project, but, due to the lack of resource surveys and other field work that would be needed to include the area, it will not be included in the South Shore project. However, Upper Echo Lake is currently being analyzed for fuel treatment under a separate environmental analysis (NEPA). Upper Echo Lake area implementation may begin after completion of the Upper Echo Lake NEPA analysis and decision.</p>	4-2
	<p>Page 2-11 and 12 discusses hazard tree removal on urban lots. No discussion was noted of hazard tree removal related to other situations such as recreation roads and trails. I have previously stated my concerns for the aggressive removal of hazard trees within the Angora Fire area, especially with large and older trees. Please use a less aggressive prescription within this project area. Some small risk is inevitable and tolerable within forested areas.</p> <p><u>Response:</u> Trees determined to be hazardous to thinning crews, or mechanical equipment and their operators, may be felled during operations if deemed necessary by the Contract Administrator. Trees determined to be hazardous within or outside of identified Urban Lots may also be removed if necessary for public safety. The South Shore project is, however a fuels reduction project and not a hazard tree removal project as was the case within the Angora Fire area. The treatment objectives and prescriptions will not be the same. Thinning treatments are described in Chapter 2- Proposed Action. See response to comment 1-8.</p>	6-3

Subject	Comment and Response	Commenter-Comment#
	<p>The effects section uses fire regime and condition class as metrics. Fire regime is measurable and predictable. Condition class is not measurable and is entirely subjective. Condition class was developed to be used at national and regional scales. Please do not use condition class at the project scale.</p> <p><i>Response:</i> In order to meet a requirement of the Healthy Forest Restoration Act (2003) the project includes an analysis of condition class to relate the existing conditions to the national descriptions. The effects analysis used additional factors such as: fire type, weather, fire behavior, surface fuel loading and, flame length. A complete description of the scope of the analysis and indicators used is disclosed in Chapter 3, at the beginning of the Fire and Fuels section.</p>	12-8
	<p>...on 3-16, the effects discussion ignores the effect of mechanical thinning in creating travel ways for ATV use. The Tahoe has had no success in preventing illegal ATV use, and this project will be no different. This is a major problem, because in reducing the hazard of the fuels the agency has increased the risk posed by ATV vehicle fires, often far from roads and therefore far from the reach of pumper-based initial attack. I remind the agency that 14% of wildfires in California are started by vehicles. ATV's are vehicles. You need to explain how you are going to mitigate this fire risk.</p> <p><i>Response:</i> The project resource protection measures in the Transportation and Access (Roads) section of Chapter 2 describes mitigations to discourage establishment of user created routes after treatments. These are specifically described in R-18 through 20 These include barriers and decommissioning temporary roads. The LTBMU also provides maps and signage to designate where OHV use is allowed.</p>	12-10
	<p>...this EIS ignores the "Guidance for Implementation of Federal Wildland Fire Management Policy (February, 2009). That guidance document was signed by...Fire & Aviation Management, U.S. Department of Agriculture Forest Service. This guidance is not referenced in this DEIS. Please explain how this project implements Federal Wildland Fire Management Policy.</p> <p><i>Response:</i> Implementation of the 2009 Fire Management Policy is specific to wildland fire suppression and is outside the scope of this fuels reduction and healthy forest restoration project.</p>	12-12
	<p>...the DEIS/DEIR (p. 3-11) it states 10% of ALL DAYS are 90th percentile. However, the Tahoe Watershed Assessment (p. 441) states that on average 10 days each year exceed the 90th percentile weather. Please clarify and explain this discrepancy.</p> <p><i>Response:</i> The apparent discrepancy is from using two different metrics. The Lake Tahoe Watershed Assessment used the average number of 90th percentile weather days, with the median metric of the Spread Component value for each weather class from 1973 through 1996 and determined "10 days a year" were in the 90th percentile.</p> <p>The FEIS uses site specific information based on the Meyers National Fire Danger Rating System weather station using the Burning Index metric over a longer time period (1973-2007) to more accurately reflect fire danger in the project area during fire season. Analysis of this data shows that 10 percent of all days are in the 90th percentile.</p>	13-33, 14-33, 15-33, 16-33

Subject	Comment and Response	Commenter-Comment#
Fuels Treatments		
<p>The DEIS implies that intensive mechanical thinning up to 30" dbh is necessary to reduce potential for severe fire. However, recent scientific studies have found that precommercial thinning of sapling and pole-sized trees only (up to 8-10 inches in diameter) effectively reduces fire severity. See, for example: Omi, P.N., and E.J. Martinson 2002....Martinson, E.J., and P.N. Omi. 2003....Strom, B.A., and P.Z. Fule. 2007.</p> <p><i><u>Response:</u> We agree, as the research cited suggests, that in many cases the reduction of only the smaller trees are enough to reduce fire severity, however, the purpose and need for the South Shore project includes both fuels reduction and forest health. In order to meet the forest health and fuel reduction objectives, the thinning prescription would be to thin from below, taking the smallest trees (suppressed and intermediate) and continue to thin trees of increasing diameter until the desired fuel reduction and stocking level are reached (see Chapter 2 Treatment Prescriptions). The FEIS does not imply any trees of a specific size are necessary for removal to reduce severe fire potential. Consistent with the literature cited in the comment, an objective of the project includes targeting smaller sized trees for thinning while retaining larger trees, and pine species with increased resistance to drought and fire. This objective considers how the project's fuel and forest health treatments help restore fire closer to its historic regime.</i></p>		1-17

Subject	Comment and Response	Commenter-Comment#
	<p>...the DEIS assumes that mechanical thinning, as you propose, will reduce, rather than increase, potential for severe fire. There is ample evidence to contradict this....Even in an area (Eldorado National Forest) that was mechanically thinned very shortly before the fire, and was masticated (material <10 diameter) mere months before the fire, had higher combined mortality from thinning and fire than the adjacent unthinned area (Hanson and Odion 2006). Another recent study found the following: —Compared with the original conditions, a closed canopy would result in a 10 percent reduction in the area of high or extreme fireline intensity. In contrast, an open canopy [from fuel treatments] has the opposite effect, increasing the area exposed to high or extreme fireline intensity by 36 percent. Though it may appear counterintuitive, when all else is equal open canopies lead to reduced fuel moisture and increased midflame windspeed, which increase potential fireline intensity (Platt et al. 2006. Annals of the Assoc. Amer. Geographers 96: 455-470). An unpublished manuscript by the Forest Service's Hugh Safford (Safford 2008) concluded that the mature forest areas that had previously been mechanically thinned (i.e., including some mature tree removal) burned mostly at high severity in the 2008 American River Complex Fire Area, and that mastication/chipping and lop/scatter increased fire severity, yet you still propose to remove many mature trees and chip/masticate and lop/scatter slash on thousands of acres. You have not analyzed, or adequately analyzed, this type of evidence from actual wildland fires burning through areas mechanically thinned. Instead, your documents make assumptions or rely upon modeling results, which are based upon assumptions that may not reflect actual real-world fire behavior. Increased fire severity could result from: a) increased mid-flame windspeeds due to a reduction in the buffering effect of mature tree boles; b) slash debris (even if you make efforts to reduce slash, this is never totally effective, and much slash remains—enough to perhaps increase overall surface fuels relative to current levels, which the current analysis does not adequately discuss); c) accelerated brush growth due to increased sun exposure; and d) desiccation of surface fuels due to increased sun and wind exposure.</p> <p><i>Response:</i> The FEIS uses flame length as an indicator for fire intensity (fireline intensity) as described in Chapter 3 Fire and Fuels. In this response it is important to recognize the differences in fireline intensity and fire severity because the commenter uses each term interchangeably. Fireline intensity is a measure of heat release during a fire (at the fireline) while fire severity is the degree to which a site has been affected by the fire; a product of fire intensity (usually measured by impacts to soils or tree mortality).</p> <p>We recognize the limitations of mastication as suggested in the cited papers. However, the effects of thinning and fuels treatments were analyzed utilizing current research, best available modeling tools, and knowledge based on extensive experience from working directly with fire both in controlled and wildland situations. The above research is correct in the fact that opening the forest canopy through thinning may increase surface winds and dry surface fuels, thus potentially increasing flame lengths during a wildfire. However, this project when completed will reduce surface fuel loads as described under Treatment Prescriptions in Chapter 2. Mastication of treatment units would only occur in areas where fuel loads are within the desired limits after the mechanical thinning treatment. This means that the mechanical thinning will remove live and dead surface fuels to the desired amount prior to mastication, while reducing CBD and CBH. Mechanical thinning may produce minor amounts of activity fuels (on the ground) in the form of tree limbs and branches. However, the total fuel loading after mechanical thinning is significantly reduced from the current fuel loading conditions (Chapter 3 Fire and Fuels, Environmental Consequences). These activity fuels would then be masticated in order to re-arrange the fuel loads closer to the ground, disconnecting them from the tree canopy (Chapter 2 Treatment Prescriptions). This may increase mid-flame windspeed, drying of fuels under a more open canopy and encourage grass and brush growth. However, in the event of a wildfire the modeled fire would primarily remain a surface fire and not transition into a passive or active crown fire which is one objective of this project. Surface fire conditions allow for safe and effective suppression operations that meet the project purpose and need as described in Chapter, Purpose and Need #1. Furthermore, according to the analysis presented in Chapter 3 Fire and Fuels Environmental Consequences the modeled flame lengths post treatment (Alternatives 2 and 3) are significantly reduced and within desired conditions as compared to the current conditions (Alternative 1 No Action).</p>	1-18

Subject	Comment and Response	Commenter-Comment#
	<p><i>In addition, the modeling analysis in Chapter 3 Fire and Fuels is further validated by “actual real-world fire behavior” as evidenced by the Angora Fire (located within the project analysis area) in 2007. Prior to the fire, mechanical thinning and fuels treatments (as similar in the South Shore Project) were conducted near a neighborhoods affected by the fire. These treatments reduced fuel loading from current conditions and reduced fire intensity while brining the fire in the treatment units to the ground as a surface fire (Murphy et al. 2007). The effectiveness of these types of fuels treatments is further validated by Safford et al. (2009)in “Effects of fuel treatments on fire severity in an area of wildland-urban interface, Angora Fire.</i></p>	1-18, Cont.
	<p>Please explain your proposal of a 30” dbh limit for mechanical thinning, in the context of a fire/fuels management proposal, when no peer-reviewed, published scientific literature recommends such a prescription as being necessary or effective in the context of fire/fuels management?</p> <p><u>Response:</u> Please refer to response to 1-17. The purpose and need for the South Shore project includes both fuels reduction and forest health. The prescriptions for both alternatives integrate fuels and forest health objectives. Stand density objectives as expressed by SDI and Basal Area are described in Chapters 2 and 3 (Forest Vegetation).</p>	1-19
	<p>Please fully consider alternatives with a 12’ and 16’ dbh limit in mechanical thinning units. The final analysis and decision documents must include a full comparison of all fire/fuel modeling output results for all of the final alternatives that are fully considered....</p> <p><u>Response:</u> An alternative was considered in response to this comment. Chapter 2 Alternatives Considered but Eliminated From Detailed Study considers the consequences of limiting diameter sizes. <i>As stated in the Proposed Action and Purpose and Need sections of Chapter 1 of the FEIS, the goal of the project is fuel reduction and forest health. The 12" and 16" DBH alternatives would not meet the project goals and objectives described under the proposed action and purpose and need, both in providing a stand density that is more resistant to drought, insects and disease, restoration of SEZs including aspen stands, and improving species composition.</i></p>	1-20
	<p>Pages 2-3 through 2-33 describe the design features for implementation of treatments to meet the objectives of the project. Generally, removal of vegetation to achieve the targeted basal area stocking level and the desired fuel loading progresses from the smallest trees toward the maximum allowable. The result is that the residual stands are mostly comprised of the larger trees. In many respects this is good in that the most fire resistant trees are retained and the stands will progress most rapidly toward late succession stages. However, these open, park like, stands lack diversity and are visually homogenous and sterile. The treatment prescription should allow and encourage some deviation to retain groups of clumps of smaller trees at spacing that does not compromise the overall objective of reduced fire hazard and restoration of forest health.</p> <p><u>Response:</u> Although the general thinning treatment calls for taking the smallest trees first then the larger trees as needed to meet fuels and stand density objectives, the stand specific prescriptions will allow for some variability in the removal of differing size class trees. Examples include species preference, such as maintaining Jeffrey pine over white fir, or a healthy tree versus and unhealthy tree. According to the analysis in Chapter 3 Forest Vegetation, some trees in the mid-story and understory would be retained where they are healthy well-growing trees that are isolated from serving as ladder fuels. Some wildlife stands would have more of the smaller trees in the understory retained to meet required habitat conditions. The project is compliant with the visual quality objective requirements in the Forest Plan (see Chapter 3 Scenic Resources). In addition, resource protection measures for scenic resources are described in Chapter 2 of the FEIS.</p>	6-1

Subject	Comment and Response	Commenter-Comment#
	<p>Page 2-10 states that treatments would be prioritized by proximity to where people live and work, existing fuel hazard level, and other resource concerns. More detail would be helpful to the public in understanding how soon specific areas of interest (usually the neighborhood in which they live) would be treated. That detail might be an indication of the planned location and scheduling of individual projects.</p> <p><u>Response:</u> This statement is meant to communicate that there are several factors that will be considered when the actual work is scheduled. It is not possible to predict with certainty the timing of activities with this project. Scheduling information will be available when implantation starts, and news releases and updates on the FS website would also give advance notice of on-the-ground operations.</p>	6-5
	<p>Page 2-5 describes proposed mechanical thinning: "To achieve the desired conditions for fuel loads and stand densities live and dead trees removed would range between 3 to 30" diameters at breast height (dbh)." If you are cutting healthy 30 inch DBH trees, you are not affecting surface or (in most cases) ladder fuels. You could make the argument that you are reducing Crown Bulk Density, but as you know, most fire scientists place CBD dead last as a factor in wildfire rate of spread and resistance to control. You could certainly use the stand density/water stress/ bugs argument, but how many stands have you got where you cannot get it below 150 Basal area without cutting 30 inch trees?</p> <p><u>Response:</u> Based on the modeling there are approximately 48 stands in Alternative 2, and 39 Stands in Alternative 3 that require tree removal between 20" and 30" dbh to reach desired stocking levels (as described in Chapter 3, Forest Vegetation, Stand Density, Mechanical Treatment Thinning Areas for Alternatives 2 and 3). Depending on individual stand conditions during implementation, additional stands could require thinning of a few trees up to 30" dbh.</p>	12-5
	<p>This portion of the document [Ch. 2, Alt. 2] does not seem to distinguish between pile burning and underburning. These are two distinct operations with different costs and very different effects.</p> <p><u>Response:</u> Based on this comment, the FEIS has been revised to clarify the distinction between pile burning and underburning (Chapter 2, Follow up Fuels Treatments and Tables 2-2 and 2-4).</p>	12-4
	<p>Table 2-3 shows that the proposed treatment does roughly 4,000 acres of pile and burn, 2,400 chipping or mastication, 400 whole tree yarding and only 850 acres of under-burn. The Angora fire blew right through both hand-pile-and-burn units and whole tree yarding units. Part of the reason may have been that the 0 to 1/4 inch surface fuels are left largely intact by these treatments. The very low packing ratio typical of Jeffrey and ponderosa pine litter layers allows this type to generate pretty respectable flame lengths, especially in high wind conditions. If you do your mechanical treatment, pile burn, etc, then under-burn the thinned stands you will get a much lower rate of spread, resistance to control and lower severity. We realize that parts of the project are close to structures, but according to the map there are many acres that are more than one half mile from structures. You should be able to safely underburn far more than 840 acres. We hope you will consider increasing this acreage in your final decision document. The community will ultimately be safer for it.</p> <p><u>Response:</u> The FEIS takes into account the type of thinning treatment, amount of surface and activity fuels, stand location and topography, air quality, treatment cost, and species composition, when determining stands for follow-up underburning (See Chapter 2 Follow-up Fuels Treatment). We believe the acreage proposed for underburning for each alternative represents the maximum feasible amount for this project.</p>	12-7
	<p>Chapter 2 describes the alternatives, including the proposed action. Within the alternative descriptions, the fuels prescriptions should state what the agency proposes to do. The fuels prescriptions are imprecise.</p> <p><u>Response:</u> The FEIS has been revised to clarify the fuels prescriptions within each alternative (Chapter 2 Follow-up Treatments and Treatment Prescriptions).</p>	12-2

Subject	Comment and Response	Commenter-Comment#
	<p>There is a growing body of science indicating that thinning followed by burning is the most effective treatment in closed canopy conifer mixed stands....This proposal does a minimum amount of burning and a maximum amount of thinning. Research done right in the Sierra Nevada shows that thinning combined with mechanical slash treatment is less effective than thinning and burning.</p> <p><i>Response:</i> The FEIS takes into account the type of thinning treatment, amount of surface and activity fuels, stand location and topography, air quality, treatment cost, and species composition, when determining stands for follow-up underburning (See Chapter 2 Follow-up Fuels Treatment). We believe the acreage proposed for underburning for each alternative represents the maximum feasible amount for this project. Prescriptions that do not include follow-up underburning are shown to still be effective in reducing fuels to the desired levels and change fire type to a surface fire meeting the purpose and need of the South Shore Project. See response to comment 12-9.</p>	12-1
	<p>After reviewing the EIS/EIR and the three alternatives, TRPA's preferred alternative is Alternative 3 due to the added environmental protections and design features that seem better suited to working in the Tahoe Basin.</p> <p><i>Response:</i> Thank you for your comment. As the responsible official, the Forest Supervisor would make the decision to select an alternative.</p>	3-9
	<p>Page 2-4 states: "Providing biomass would be preferred to burning wherever feasible, and could be supplied from a variety of the proposed treatments." Biomass has a completely different effect on fuel loading and arrangement than burning. The document appears to equate the two.</p> <p><i>Response:</i> The FEIS has clarified the distinction between the use of biomass removal and burning (Chapter 2, Follow-up Treatments). When feasible, the fuels would be removed by chipping and hauling from mechanical treatment units instead of piling and burning, which reduces the need for mastication. Where hand thinning units are close to roads, biomass could be made available for the public as firewood. Providing biomass could reduce the amount of burning needed and reduce smoke production in the project area, while providing biomass to biomass facilities and the public.</p>	12-3
	<p>On page 3-16 the agency asserts: "Alternative 2 would result in reduced aerial and surface fuel loads. The indirect effect would be to reduce hazardous wildland fire behavior from fires both originating within treatments and from outside point sources (Graham et al. 1999)." This statement is not really correct. With so little under-burning you will do very little to reduce 0 to 1/4 inch fuels in the litter layer. This in turn may allow an Angora type event to occur.</p> <p><i>Response:</i> The FEIS takes into account the type of thinning treatment, amount of surface and activity fuels, stand location and topography, air quality, treatment cost, and species composition, when determining stands for follow-up underburning (See Chapter 2 Follow-up Fuels Treatment). We believe the acreage proposed for underburning for each alternative represents the maximum feasible amount for this project. Stands that do not have follow-up underburning will leave fuels from 0-1/4 in the litter layer. Stands that have representative fuel models with fuel loads that are less than 6 tons per acre in the 0" to 3.0" size classes tend to have a surface fire type of fire behavior with low to moderate torching. The objective for meeting fuel reduction in all proposed units is to leave less than 4 tons per acre of the 0" to 3" size classes resulting in predicted fire type of surface type based on FVS modeling.</p> <p>Research done in the Lake Tahoe Basin has shown the effectiveness of similar fuel treatments during a wildland fire, "Effects of Fuel Treatments on Fire Frequency in an Area of Wildland-urban Interface, Angora Fire, Lake Tahoe Basin, California" (Safford et al. 2009).</p>	12-9

Subject	Comment and Response	Commenter-Comment#
	<p>The document repeatedly uses the term "feasible" without providing examples of what is or isn't feasible. Providing such examples would allow the reviewer to better understand the likely treatments for a given area. The document should also describe the process for determining site-specific treatments.</p> <p><i>Response:</i> The description of Alternatives 2 and 3 as well as resource protection measures in the FEIS have been revised to clarify the use of the word feasible. Feasibility is evaluated based on cost, effectiveness, safety, environmental consequences, timing, and other limitations. The FEIS has been revised to further clarify the process for determining site-specific treatments (Chapter 2 Treatment Prescriptions for alternatives 2 and 3).</p>	13-14, 14-14, 15-14, 16-14
	<p>The document fails to adequately consider alternatives to pile burning....The EIS must consider all available methods for removing thinned materials throughout the South Shore project area. The analysis must include the different options available for removal, the methods, time and cost, and compare this to the methods, time and cost (including staff time in preparing smoke management plans and getting approval from appropriate air regulatory agencies) involved in performing pile burning. Additionally, the Forest Service must consider the impacts of every burn day used for a pile burn that could otherwise have been used for ecological understory burning, and the costs associated with not performing the understory burns and/or delaying them into future years....Further, the DEIS/DEIR fails to analyze the value of alternatives to pile burning to the protection of ecological function of the forest, such as biomass removal to alternative energy plants, chipping, and other ecologically friendly alternatives.</p> <p><i>Response:</i> The FEIS takes into account the type of thinning treatment, amount of surface and activity fuels, stand location and topography, air quality, treatment cost, and species composition, when determining stands for follow-up treatments (See Chapter 2 Follow-up Treatment). On certain stands, not all fuel treatment methods are available due to above factors. The FEIS has clarified the distinction between the use of biomass and burning (Chapter 2, Follow-up Treatments). We believe the acreage proposed for prescribed burning for each alternative represents the realistic amount for this project. When feasible, the fuels would be removed by chipping and hauling from mechanical treatment units instead of piling and burning, which reduces the need for mastication. Where hand thinning units are close to roads, biomass could be made available for the public as firewood. Providing biomass would reduce the amount of burning needed and reduce smoke production in the project area, while providing biomass to biomass facilities and the public.</p>	13-26, 14-26, 15-26, 16-26
	<p>The DEIS/DEIR fails to consider and disclose testing specific diameter classes in narrow increments so as to provide specific information about where in proposed treatment areas does a certain level of thinning allow for attainment of fuels objectives. We requested this examination in our comments on the proposed action in order to understand where the resources objectives are met for the South Shore Project. Generally surface fuel treatments alone change fire behavior from crown fire to surface fire over a variable distance related to wind speed and slope. With small diameter thinning, this only narrows that distance. Again we ask the LTBMU to model via dbh increments, zone of effective treatment levels in the DEIS. In this respect, we note that the DEIS/DEIR (p. 3-23) finds that treating surface fuels changes fire behavior from passive crown fire to surface fire in many stands.</p> <p><i>Response:</i> An alternative was considered in response to this comment. Chapter 2 Alternatives Considered but Eliminated From Detailed Study considers the consequences of limiting diameter sizes. As stated in the Proposed Action and Purpose and Need sections of Chapter 1 of the FEIS, the goal of the project is fuel reduction and forest health. Considering 2" diameter class increments would not meet the project goals and objectives described under the proposed action and purpose and need, both in providing a stand density that is more resistant to drought, insects and disease, restoration of SEZs including aspen stands, and improving species composition.</p>	13-32, 14-32, 15-32, 16-32

Subject	Comment and Response	Commenter-Comment#
Heritage		
<p>Washoe Environmental Protection Department is aware that cultural archaeological sites may exist throughout the proposed project area and asks that if at any point artifacts are found, operations cease and the WEPD, as well as the Tribe's cultural resource coordinator...be contacted.</p> <p><u>Response:</u> The Heritage Resources section of Chapter 2 contains resource protection measures stating that if any artifacts are found, operations would cease and both the Washoe Tribe of Nevada and California and Forest Heritage Resources personnel would be contacted immediately. Operations would not resume until the area had been investigated, and flagged to avoid disturbance of artifacts.</p>		8-2
Miscellaneous		
<p>The Department of the Interior has received and reviewed the subject document and has no comments to offer.</p> <p><u>Response:</u> Thank you for your review.</p>		5-1
Snags		
<p>...nor does the DEIS identify the current density of large snags in each proposed logging unit—thus we have no way to know whether the current density of large snags in the project and analysis areas even meets the minimums required by the Sierra Nevada Forest Plan Amendment.</p> <p><u>Response:</u> As directed by the Forest Plan as amended by the Sierra Nevada Forest Plan Amendment, snag retention levels were determined for the project in accordance with the guidelines. Prescriptions for treatment in all the units would include the retention of 4 to 8 snags per acre (Chapter 2, Treatment Prescriptions, Resource protection measure WL -8). For example, PACs would require up to 8 snags per acre.</p>		1-6
<p>The DEIS states that a key objective is to reduce future mortality of trees ostensibly in order to benefit the forest. However, the DEIS does not explain the ecological damage that large snags supposedly cause in the forest, and fails to divulge the damage that would be caused to numerous forest species if large snag levels are reduced further from current levels. Nor does the DEIS divulge the current density of snags in each size class (this should be presented for each proposed mechanical thin unit). Further, the DEIS states that existing large snags will be removed, but fails to divulge how many would be removed, and how the planned removal of large snags would affect large snag densities in each unit, and in the project area as a whole—as well as the impact of this on native cavity-nesting species.</p> <p><u>Response:</u> The FEIS does not claim that snags cause ecological damage. In fact, Chapter 2, Treatment Prescriptions emphasizes that snags are created as a result prescribed fire. In addition, the resource protection measures (Chapter 2) specify the priority for retention of large snags and logs (greater than 20" dbh) in keeping with the Forest Plan for wildlife habitat., Fuels/Vegetation and Wildlife resource protection measures describe the priority for snag retention to meet both fuel and wildlife objectives. See response to 1-11.</p>		1-10

Subject	Comment and Response	Commenter-Comment#
	<p>The Sierra Nevada Forest Plan Amendment recommends maintaining at least 3 large (greater than 15 inches in diameter) snags per acre in eastern Sierra Nevada forest types, and recommends retaining 4-6 large snags per acre in other forest types, in order to provide minimum habitat needs for native wildlife species (USDA 2004, AR9409 [SNFPA 2004 Record of Decision, p. 51])....There is currently a pervasive deficiency of large snags in California's forests, with less than 2 large snags per acre presently existing in every region, including the Sierra Nevada, according to a comprehensive analysis conducted by Forest Service scientists in a recently-released report (Christensen et al. 2008). In ponderosa pine forests, such as those that dominate the project area, the large snag deficit is even greater, with only 0.6 per acre currently (Christensen et al. 2008). This report also warned about the threat posed to the ecological health of California's forests by this large snag deficiency, pointing out that current levels may not be sufficient to support populations of numerous wildlife species (Christensen et al. 2008).</p> <p><i>Response:</i> It is not a purpose of this project to create snag habitat where it does not currently exists. The project would retain snags to a level compliant with the Sierra Nevada Forest Plan Amendment (See response to 1-6). The ponderosa pine forests which the commenter suggests dominate the project area is not applicable because the majority of the analysis area consists of mixed conifer and Jeffrey pine types (Chapter 3, Existing Conditions Forest Vegetation). Although the Christensen et al. (2008) assessment showed snags as one limiting component in certain vegetation types it does not address wildlife habitat management prescriptions.</p>	1-11
	<p>The DEIS acknowledges that some additional snag recruitment would be made possible by allowing current stands to mature further. The DEIS also implies that planned thinning in the project area will further reduce future large snag densities across the several thousand acres that would be logged, by reducing competition. The DEIS does not analyze or attempt to estimate the extent of the likely future decline in large snags as a result of the project. Nor does the DEIS analyze the adverse impacts of further reducing future large snag densities—which are already critically low in California's forests—on populations of native wildlife species that depend upon ample large snag densities, or attempt to explain how further reductions in large snags would advance the project's stated goal of improving "forest health".</p> <p><i>Response:</i> The Terrestrial Wildlife effects analysis (Chapter 3) takes into account the change in multi-habitat structure (i.e. snags) resulting from the implementation of Alternatives 2 and 3. Fuel reduction by thinning to retain the largest trees, both live and snags, is expected to retain a sufficient number of snags to provide wildlife habitat and to reduce the risk for high intensity crown fire in the Wildland Urban Intermix. Reducing overcrowded conditions would not eliminate all tree mortality, an objective for a healthy forest is to reduce excessive mortality and allow pathogens and insects to operate at an endemic rather than epidemic level, as explained in the Chapter 3 Forest Vegetation.</p>	1-12
Soils		
	<p>Pg. 2-21 Sixth bullet, sub-bullets 3, 4, 5. As stated in comment 2-21, please describe "suitable" over snow conditions. Sub-bullets 3 and 4 set a standard; sub-bullet 5 giving field staff discretion to make a call on snow conditions other than those described in sub-bullets 3 and 4 makes those standards irrelevant.</p> <p><i>Response:</i> Suitable over-snow conditions have been clarified to address this concern about sub-bullet 5, in the watershed resource protection measures in Chapter 2.</p>	3-7
	<p>Pg. 2-21 Fifth bullet. Please define "moist soil" in terms of water content. Moist soils are the most susceptible to compaction.</p> <p><i>Response:</i> Moist soil is defined in the table in Appendix D. This table is based on water content and soil texture.</p>	3-6

Subject	Comment and Response	Commenter-Comment#
	<p>Pg. 2-20 First bullet. The use of mechanized equipment has only been demonstrated with Cut-to-length (CTL) equipment. All other ground based methods will need further review. Please revise the language to specifically identify CTL systems in stream environment zones (SEZs).</p> <p><i>Response:</i> We expect implementation of this project to take several years. During that time, if another ground-based system is reviewed and found suitable, it could then be used in SEZs. Until such a review takes place, CTL systems would be the only ground-based system used in SEZs.</p>	3-4
	<p>Pg. 2-21 Fourth bullet. Please describe what snow conditions are considered "suitable" for over snow operations.</p> <p><i>Response:</i> Suitable conditions are described in Chapter 2, Soil, water and riparian resource protection measures and transportation resource protection measures, and they are discussed further in Chapter 3.</p>	3-5
Timber		
	<p>The DEIS uses a scientifically-inaccurate SDI-Max. The EA uses 410 as the Jeffrey pine SDI-Max, but does not cite to any scientific study to support this. Oliver (1995) specifically identifies SDI-Max for ponderosa as being a much higher value than 410, and includes figures for northern California ponderosa pine showing stands reaching SDI values of 571, which is SDI-Max. In fact, the Forest Service's own FVS outputs routinely identify SDI-Max for both ponderosa and Jeffrey pine as 571 in California. The DEIS uses this erroneously-low SDI-Max value of 410 to justify removing far more trees than would otherwise occur. This misrepresentation of SDI-Max is greatly exacerbated by the fact that the DEIS incorrectly uses 410 as the SDI-Max for mixed-conifer, white fir, and red fir stands, despite acknowledging that SDI-Max for white and red fir is about 750-800.</p> <p><i>Response:</i> Jeffrey pine and ponderosa pine have different maximum SDI values as do all different tree species. Oliver's max SDI of 571 for Jeffrey pine is a general value determined for the West Slope of the Sierra Nevada Province (eco-region) and is not specific to the drier conditions of the Lake Tahoe Basin. The South Shore Landscape Assessment, 2004, was referenced for determining a local value of 410 as a max SDI for Jeffery pine. An objective of the project, found in Chapter 2, purpose and need, is to increase the proportion of Jeffery and sugar pine in the species composition of these stands. Therefore, the max SDI value used for most mixed conifer stands was the Jeffrey pine SDI for the desired species composition, not the current conditions. Most mixed conifer stands in the South Shore project units are only considered so now because of the high amount of white fir that has grown into the stands due to lack of fire and past above average precipitation, as explained in Chapter 3, Forest Vegetation, Existing Condition stand composition, structure, and density. The max SDI used for red fir stands and other mixed conifer was 750. Research from Long (1995) and Fettig et al. (2007) was also used, as cited in Chapter 3.</p>	1-4
	<p>The DEIS claims that 12" and 16" DBH alternatives can't be fully considered because they would not allow the Forest Service to reduce basal area to 100-150 square feet per acre or achieve 40% of the claimed SDI-Max. The primary goal of the project is to reduce potential fire severity, and that goal can be effectively achieved with a 12" or 16" dbh limit....So, the only justification for refusing to fully consider these lower-intensity alternatives is the arbitrary goal of reducing stands to 150 square feet per acre of basal area and 40% of SDI-Max.</p> <p><i>Response:</i> As stated in the Proposed Action section of Chapter 1 of the FEIS, the goal is for fuel reduction and forest health. There is no primary goal of only reducing potential fire severity. This alternative was analyzed for consideration, but because the goal is two-fold, the 12" and 16" DBH alternatives would not meet the project goals and objectives and were therefore not considered in any further detail. Please see Chapter 2, Alternatives Considered but Eliminated from Detailed Study.</p>	1-5

Subject	Comment and Response	Commenter-Comment#
	<p>The DEIS fails to identify scientific studies, or other hard data, to justify the basal area target of 100-150 square feet per acre or the SDI target of 40% of SDI-Max. Instead, the DEIS simply makes vague qualitative statements about competition, beetles, and future tree mortality. The DEIS claims, as a central purpose, to seek to advance “forest health”, but the DEIS does not explain how reducing forest density, with the goal of further reducing future large snag densities, will advance the ecological health of the forest.... The DEIS fails to identify the hard data underlying the target thresholds, and fails to identify the methodology used to reach these thresholds. As a result, the DEIS violates NEPA.</p> <p><u>Response:</u> The FEIS has been expanded to include scientific justification of SDI and Basal area targets for forest health (See Chapter 2 Treatment Prescriptions). The target of 40% max SDI and corresponding basal areas are discussed in Chapter 3, under Forest Vegetation Existing Conditions; data from stand exams is summarized, modeling analysis is described, and literature citations are given to disclose methodology and data used. As stated in Chapter 2, resource protection measures for Focal Wildlife Species (WL-8), snag densities would meet SNFPA guidelines where they currently exist. The objective of the project, as stated in Chapter 1, purpose and need, is to reduce fuels and increase forest health. There is no goal or objective to reduce future or existing large snags below the SNFPA guidelines.</p>	1-7

Subject	Comment and Response	Commenter-Comment#
	<p>In the FEIS, please describe in detail each of the following for all of the final alternatives (including figures) IN EACH PROPOSED TIMBER SALE UNIT: a) the existing density of trees, both live and dead, in each size class (in two-inch dbh increments); b) the existing species composition of trees in each size class; c) the existing range of variability in density and species composition across the project area; d) your expected post-logging density of trees (trees per acre and basal area) in each size class; e) your expected post-logging composition of trees in each size class; your post-logging expected range of variability in density and composition; f) the current and expected post-logging canopy cover in each unit; and g) current and post-logging SDI in each unit. Without this information, it is impossible to evaluate the scientific accuracy and integrity of the analysis, or to understand the extent and intensity of canopy reduction and the resulting impacts to the habitat of spotted owls and MIS and SAR species.</p> <p><u>Response:</u> <i>Stand specific data was collected (including all the information mentioned above) and used to determine effects for all resource areas including wildlife habitat. This information is located in the project record, and too extensive in detail and size to be incorporated into the FEIS. Calculated averages are located in Chapter 3, Section B. - Forest Vegetation. Chapter 2, Treatment Prescriptions describe the desired treatment outcomes.</i></p>	1-14
	<p>The DEIS states that several distinctly different fire/fuel actions will occur, including mechanical thinning of merchantable sawtimber (the DEIS seems to suggest that these are generally trees over 14 inches in diameter), hand-thinning of smaller, submerchantable trees, piling/burning of slash, and prescribed burning. However, the DEIS fails to divulge when these activities would occur, whether the timber sale contractor would be required to thin small trees in addition to merchantable trees, whether the timber sale contractor would be required to pile and burn the slash, and what the potential adverse impacts might be on nearby homes if: a) a fire occurs between mechanical thinning of merchantable trees and thinning of small trees; b) a fire occurs between thinning of small trees and slash piling; c) a fire occurs between slash piling and slash burning; and/or d) a fire occurs between burning of slash piles and prescribed burning. The DEIS does not divulge whether the thinning of small trees (less than 14 inches in diameter), the slash piling, slash burning, and prescribed fire would be done as distinctly separate stages in the project's implementation and, if so, whether the funding for such activities is guaranteed and whether the air boards will allow all of the burning that will be necessary to reduce the logging-created slash even if funds are available.</p> <p><u>Response:</u> <i>The purpose of the South Shore project is not for economic gain; see the economic analysis in Chapter 3. Thinning of all size class trees within mechanical treatments would be done through a variety of contract methods that result with all thinning treatments performed within the same entry. All treatments would be done in order to meet the desired conditions and objectives. The South Shore project is designed to decrease fuel loads, both surface fuels and ladder fuels, and restore forest health; see purpose and need, Chapter 1. The effects of hand thinning are discussed in Chapter 3 – Direct and Indirect Environmental Consequences. With hand thinning, surface fuel loads are increased temporarily until the piles are burned. After pile burning, however, the fuel loads are significantly reduced. The thinning treatments have been proven to be effective within the LTBMU, specifically, and discussed in “Effects of Fuel Treatments on Fire Severity in an Area of Wildland-urban Interface, Angora Fire, Lake Tahoe Basin, California” (Safford et al. 2009). The analysis is based on the predicted outcome when the project is completed. We are not required to analyze worst case scenarios for each intermediate step of the project especially for unpredictable events. Funding of all fuel treatment elements (mechanical and hand thinning, mastication, piling, and pile burning) has been secured for this project through approved implementation project proposals for the South Shore Project through the Southern Nevada Public Lands Management Act. Although allowable burn days within El Dorado County may be limited, we do not anticipate that the number of available burn days will prohibit the burning proposed in this project.</i></p>	1-26

Subject	Comment and Response	Commenter-Comment#
	<p>...not only does the existing scientific literature state that SDI-Max for a given stand should be based upon the proportional representation of the tree species in the stand (Shaw 2006), but also that the Forest Service's own FVS Handbook states that SDI-Max should be determined this way as well. If the Forest Service uses the correct SDI-Max value of 571 for Jeffrey pine..., and uses proportional representation of tree species to determine the SDI-Max value for a given stand, then the actual SDI-Max values for the current condition will be much higher than reported by the DEIS, there would be far fewer stands over 60% of SDI-Max, and a 12" or 16" dbh alternative would result in post-thin SDI values that are much lower proportions of SDI-Max than assumed by the DEIS. In other words, if the Forest Service refrains from fabricating data with regard to SDI and SDI-Max, there is no justification to remove anywhere near the number or size of trees the DEIS proposes to remove—even if we were willing to accept as valid the constraints imposed by the 2004 letter from the Regional Forester (which we are not).</p> <p><u>Response:</u> The SDI-max was based on a Jeffrey pine SDI value as a desired primary species. This is consistent with the methods described in Shaw (2006). The SDI-max used in this project is based on the species mix of the post treated or desired stand structure, not the current or pre treated stand structure. Most mixed conifer stands in the South Shore project units are only considered so now because of the high amount of white fir that has grown into the stands, as explained in Chapter 3, Forest Vegetation, Existing Condition stand composition, structure, and density. In stands that currently have a mix of species, but are desired to be Jeffrey pine dominated stands, using a proportional representation of the existing tree species would result in a failure to obtain a desirable and sustainable stand structure. See Chapter 3, Forest Vegetation, existing condition, stand composition, structure and density for a discussion of existing and desired conditions. A lower diameter alternative was analyzed for consideration, but it did not meet the purpose and need, especially for forest health, (see Chapter 2, Alternatives Considered but Eliminated from Detailed Study).</p>	1-28
	<p>The effects chapter has no mention of bole damage. The agency proposes thousands of acres of cut to length logging, ground skidding, mastication, all done with large steel machines and there is no bole damage? Mechanical damage of this type is completely different from scars caused by heat injury and much more likely to be infection courts for fungi. How will you mitigate?</p> <p><u>Response:</u> Some level of bole damage is anticipated through the thinning of trees from mechanized harvest systems. From contract inspections on similar fuels reduction/forest health projects where mechanized harvest systems have been used on similar stand conditions to those found within the South Shore Project area, bole damage was confined to less than 5% of the remaining trees. This level of damage is considered minimal. All mechanical thin contracts would include provisions for Control of Operations, Suspension of Operations, and Contract Breach, which require the contractor to minimize damage to trees.</p>	12-11
Transportation		
	<p>Roads can act as barriers to migration, lead to water temperature changes, and alter streamflow regimes. Improper culvert placement where roads and streams cross can limit or eliminate fish passage.</p> <p><u>Response:</u> When roads are poorly located and/or culverts are improperly sized or placed this comment is accurate. Two such existing crossings that are altering streamflow regimes and are barriers to fish passage within the South Shore project would be replaced with crossings designed to permit unobstructed streamflow and fish passage. The Transportation and Access (Roads) section in Chapter 2 discusses these crossings and the BMPs and construction methods to prevent these negative environmental effects. Chapter 3 discloses that the effects are expected to be minimized with implementation of the resource protection measures and BMPs for road construction, reconstruction, and use. Please refer to the following sections in Chapter 3 for the discussion of effects: Water and Riparian Resources, Aquatic Wildlife, and Transportation and Access.</p>	13-36, 14-36, 15-36, 16-36

Subject	Comment and Response	Commenter-Comment#
	<p>Roads greatly increase the frequency of landslides, debris flow, and other mass movement.</p> <p><u>Response:</u> When roads are poorly located, especially on steep slopes, this comment is correct. However, roads for the South Shore project are on gentle slopes, and where risk of landslides, debris flows, or other mass movement is low. Information on geologic hazards was available for transportation planning, but was not included in the DEIS/DEIR. For the FEIS, further discussion to clarify geologic hazards has been included, and the Soils Resource section of Chapter 3 is updated to include Geology of the FEIS to clarify expected geologic environmental effects. Temporary roads locations were verified on the ground to minimize the risk of impact from geologic hazards</p>	13-34, 14-34, 15-34, 16-34
Vegetation		
	<p>The South Shore DEIS relies on stand averages across the project area which contains diverse ecosystems with variable stand density metrics. The environmental impacts discussion fails to take a hard look at the specific density issues related to various forest types, topographic position and specific composition on a unit by unit basis, thereby generalizing the forest conditions into a broad brush, homogenous stand condition, post-treatment.</p> <p><u>Response:</u> The South Shore Project did not rely on stand averages across the project area. Stand averages were used in the analysis to display general comparisons between alternatives and effects. Stand specific information was collected on this project and each stand was analyzed using the specific data from that stand. The stand specific analysis was also the point of reference for all the other resource areas (e.g., wildlife, hydrology, aquatics) so that no effects determination were based on stand averages, but on stand specific information on over 220 stands, which was summarized for the EIS. This is explained in the effects discussions in Chapter 3.</p>	13-30, 14-30, 15-30, 16-30
	<p>The South Shore DEIS/DEIR's stand density discussion is not consistent with Regional policy (Conifer Forest Density Management for Multiple Objectives July 14, 2004) nor does the stand density discussion provide accurate, scientific information on the breadth of issues surrounding stand density management and forest health in the Lake Tahoe Basin in violation of NEPA 40 CFR § 1500.1.</p> <p><u>Response:</u> The South Shore Project is consistent with the Regional policy on Conifer Forest Density Management for Multiple Objectives. Regional policy addresses the need to provide an integrated approach for obtaining desired conditions on a landscape. This policy also states that an objective when designing thinning is to ensure that stand density does not exceed an upper limit of a maximum stand density system, such as percent of normal basal area or stand density index. The letter states "for example: 90% of normal basal area, or 60% of maximum stand density index." This does not mean that all thinning needs to be designed to this example provided. It only implies that thinning should be designed so that a density threshold is not exceeded. The South Shore Project has been designed to thin stands to a level that will remain below a density threshold for at least 20 years after thinning. The South Shore Project has also been designed to vary the level of thinning where needed to meet varying objectives, such as wildlife habitat needs that may need to retain higher levels of stand density to meet habitat requirements. For the South Shore project, stand density levels have been managed to provide a diversity of stand densities on a site-specific basis, as discussed in Chapter 3, Forest Vegetation section, analysis of effects of the action alternatives.</p>	13-29, 14-29, 15-29, 16-29

Subject	Comment and Response	Commenter-Comment#
Water Quality, Riparian		
	<p>The project places almost exclusive focus on fire risk without similarly acknowledging the sensitive environments that will be affected by the fuel reduction activities.... The Existing Situation section in the DEIS/DEIR (pg. ii) is based entirely on Fire, Recreation and Scenic, as if these are the only elements of concern. However, a key value at risk from this and other fuel reduction projects are the water quality of the Lake itself. Indeed, the current 1988 Land and Resource Management Plan, Lake Tahoe Basin Management Unit, states in the section titled Management Practices and Forestwide Standards and Guidelines, General Management, —In resolving conflicts, the following list of resources or uses are in order of priority and will normally apply: Highest priority will be given to the protection of water quality and the enhancement of the clarity of water in Lake Tahoe.”(pg. IV18).”We request that the Final EIR/EIS describe how the 2004 Framework standards apply to the Lake Tahoe basin specifically in terms of the ONRW designation, or, why the general standards of the 2004 document are not altered to fit the ONRW designation. If not, the agencies should explain why standards for other regions are good enough for the ONRW.</p> <p><u>Response:</u> Water quality is discussed extensively in Chapter 3, primarily in the Water and Riparian Resources section, and also in the Aquatic Wildlife section. The project resource protection measures and BMPs (Appendix B) provide protection for Tahoe Basin water bodies and watersheds, as disclosed in Chapter 3, direct, indirect, and cumulative effects for the action alternatives. Resource protection measures found in Chapter 2 for Soil, Water and Riparian resources, and Aquatic Resources are site-specific to the South Shore project area incorporates SNFPA (framework) direction and additional project-specific measures to protect the tributary streams, lakes, and Lake Tahoe. The Existing Situation section of the Executive Summary is only a brief summary of some of the highlights in the FEIS. It is not meant to represent every aspect of the complete FEIS.</p>	1-1
	<p>We recommend implementation of rigorous project-specific monitoring, including photo monitoring before and after the project is implemented. Such monitoring should be sufficient to show where large trees that provided bank stability were removed, particularly in and on stream banks, and to show resulting skid trails and deep ruts in floodplains/SEZs where mechanized thinning took place. Pre- and post-project photo monitoring should also reveal the changes to shading conditions in streams and along their banks, as well as burn pile location, size, density, and post-burn project completion to show the rate of restoration of vegetation, bank stability, and general pre-project conditions. The...FEIS should also provide additional data to support the conclusion that mechanical thinning and pile burning in the SEZ will not result in adverse soil, sedimentation, erosion or water quality effects.</p> <p><u>Response:</u> The South Shore Project describes monitoring in Chapter 4. Monitoring elements specific to your concerns include SEZ pile burn monitoring with an adaptive management component, implementation monitoring, and the BMPEP. Results of monitoring from past projects using mechanical applications in SEZs are included in the FEIS under Chapter 3, Water and Riparian Resources (Heavenly SEZ and Roundhill SEZ monitoring reports). The monitoring results support the conclusion that mechanical thinning as proposed in this project does not result in significant adverse soil, sedimentation, erosion or water quality effects. In addition, the FEIS incorporates a stream shade and temperature monitoring program to determine the degree, if any of impacts. Although there are no monitoring elements specific to assessing bank stability, and rutting in floodplains, there are specific resource protection measures described in Chapter 2 under Soil Water and Riparian, Aquatic Resources that address shade, bank stability, large wood, soil moisture in SEZ, and pile burning in SEZs.</p>	2-3

Subject	Comment and Response	Commenter-Comment#
	<p>We recommend that fuel hazard reduction and forest restoration projects in the Lake Tahoe Basin be subject to systematic monitoring and research, data collection, and analysis necessary to estimate fine sediment and nutrient load contributions to Lake Tahoe. For instance, as has been undertaken for other TMDL source categories, we recommend a concerted monitoring and modeling effort be undertaken by LTBMU to characterize both the impacts of this project (and others like it) and the benefits of implementing Best Management Practices....Ideally, the modeling should inform optimum deployment of BMPs for this project and future projects. At a minimum, modeling should provide estimates of pollutant loads resulting from this project for 20 years, and could, therefore, be conducted during or following project implementation. Modeling should be used to evaluate the tradeoffs between implementing BMPs and requiring increased load reduction efforts from other forest management projects and/or TMDL source categories. Whatever model is used or developed should be capable of providing clarity-reducing pollutant loading estimates to track TMDL implementation and inform future evaluations of - and, if necessary, revisions to - the Lake Tahoe TMDL load allocations and Implementation Plan.</p> <p><i>Response: The LTBMU has prescribed monitoring based on the level of risk for this project, as described in Chapter 4. The monitoring includes an adaptive management component; management activities may be adjusted based on monitoring results. In response to comments, Chapter 4 has updated criteria for BMPEP monitoring, now including several project specific BMPEP evaluations.</i></p>	2-2
	<p>The FEIS should provide the rationale and criteria used to create the...primary triggers [p.3-107]. For instance, describe the applicable water quality requirements and objectives to be achieved, the method used to determine if these requirements and objectives are met or not, and how remedial design features will be selected and implemented. We recommend the FEIS include specific data demonstrating that the above primary triggers, design features, and project-specific, as well as ambient, monitoring requirements, are sufficiently protective - in combination with the anticipated fuels reduction and forest management activities over the next 20 years - to ensure LTBMU meets the projected requirement for a 12% reduction in sediment loads from their lands, pursuant to the forthcoming Lake Tahoe TMDL.</p> <p><i>Response: Based on this comment, other public comments, and further collaboration between the LTBMU and Lahontan Water Board we refined our monitoring approach. Rather than using the triggers described in the DEIS, other criteria such as the relative potential risk for impacts, were used to select sites for additional BMPEP monitoring (See Chapter 4). The monitoring proposed for this project is designed to indicate whether resource protection measures and BMPs are sufficiently protective. This project is not required to meet an overall sediment reduction goal.</i></p>	2-4

Subject	Comment and Response	Commenter-Comment#
	<p>We recommend that the most affected watersheds, such as those already over the TOC with an increase in risk ratio, trigger a more detailed analysis and identification of BMPs to maintain existing sediment loads. For example, consider implementation of the TMDL Pollutant Reduction Opportunity (PRO) Report "Full BMPs" in addition to implementing the design features described in Chapter 2. Full BMPs include tilling, mulching and construction waterbars on all skid trails; and obliterating/recontouring...all landing and temporary roads. The PRO Report states "this level of post-treatment BMPs is intended to restore hydrologic function in disturbed areas to levels that are equivalent or higher than undisturbed soil conditions." These forest management BMP definitions were used in the TMDL's Forested Uplands Source Category Group analyses and developed in close coordination with the LTBMU.</p> <p><u>Response:</u> The CWE analysis identification of watersheds over the TOC did trigger additional analysis and project adjustments, such as changing some WT acres to CTL and some CTL acres to hand treatment described in Alternative 3. However, based on the analysis of potential impacts for this project, the "full BMP" approach (as described in the PRO report) would not be necessary to restore hydrologic function after South Shore project activities. Chapter 2, contains decommissioning resource protections measures for temporary roads and landings, including mulching (chips or masticated material) waterbar construction, ripping, revegetation, and other measures. The regional BMPs and the resource protections measures developed for this project would adequately protect soil and water quality and mitigate for any effects that treatments might have on these resources, see Appendix B for project BMPs, and see Chapter 3 for direct, indirect, and cumulative effects to water and soil resources.</p>	2-5
	<p>Areas within the Angora Fire boundary are of special concern due to the fact that in many areas there is no vegetation or ground cover to act as a buffer. Without such cover, distance from stream course alone does not constitute a buffer. How are water quality buffers being addressed in areas where adequate vegetation and ground cover does not exist?</p> <p><u>Response:</u> This project does not include severely burned areas within the Angora Fire area. Those areas were removed from the project after the fire, and are being addressed in the Angora Fire Restoration Project. Based on field evaluations after the Angora Fire, approximately 300 acres within the Angora Fire perimeter remained in a condition with surface and ladder fuels needing treatment to attain desired conditions. These acres were kept in the South Shore project.</p>	3-9
	<p>Throughout the document it is stated that ground based equipment will not operate within 25 feet of perennial and intermittent streams. A 25 foot buffer for perennial streams is not sufficient to protect water quality, especially run off of fine sediment, and seems to be a large departure from the LTBMU BMP 28 used on the Quail Project which specifies a minimum setback for mechanical equipment during the summer operating period of 100 feet. Even California Forest Practice Rules require 50 to 150 foot buffers (depending on slope) for Class I and Class II stream courses. TRPA would like to discuss this issue further to resolve concerns over water quality impacts, specifically on perennial streams.</p> <p><u>Response:</u> In response to this comment, we have updated the resource protection measures (Chapter 2) to provide additional protection for perennial streams in whole tree treatment units based on slope and ground cover. The 25 ft buffer for CTL units that are found to be less than or equally sensitive to the HSEZ project site (as determined by the sensitivity rating system, Appendix C). has already been agreed to by the TRPA, LWB and LTBMU staff based on the favorable monitoring results and lack of impacts associated with the HSEZ project using that same buffer. This buffer was also found to provide adequate protection for CTL treatments in the Roundhill Project.</p>	3-8
	<p>Pg. 2-19 Water and Riparian design features Fifth bullet: —...except at temporary or permanent stream (BMP#1-19),...was the word "crossing" left out of this sentence?</p> <p><u>Response:</u> Yes. Thank you, this has been corrected for the FEIS.</p>	3-3

Subject	Comment and Response	Committer-Comment#
	<p>TRPA would like to see continued refinement of the SEZ Rating System. This refinement should be based on the results of monitoring its use during this project. TRPA fully expects the use of this rating system to improve over time and that USFS staff will be engaged in monitoring project results to this end.</p> <p><u>Response:</u> We agree. Some minor changes to the rating system have already been made based on the experiences with using the system for South Shore SEZs and other LTBMU vegetation management projects. The revised version of this rating system is included as Appendix C of the FEIS. We expect to propose further refinements in the future and expect to engage TRPA and Lahontan Water Board in discussions for those refinements. Monitoring for results of the South Shore project is found in Chapter 4.</p>	3-10
	<p>The South Shore Project does not provide adequate mitigation through monitoring and adaptive management to avoid or substantially lessen potentially significant impacts to water quality and basin plan beneficial uses.</p> <p><u>Response:</u> Clarification and additional details for resource protection measures (mitigation measures) and monitoring elements, including adaptive management, have been incorporated in the FEIS in response to public comments and as a result of coordination between LTBMU, TRPA, and Lahontan Water Board staff. The project resource protection measures, BMPs and monitoring elements are expected to prevent significant effects to water quality and beneficial uses, which is supported by the analysis included in the FEIS. See Chapters 2, 3, 4, and Appendix B.</p>	13-17, 14-17, 15-17, 16-17
	<p>The South Shore Project does not include any instream monitoring component to ensure that design features and BMP implementation are avoiding impacts to water quality.</p> <p><u>Response:</u> In stream water quality monitoring has been attempted by the LTBMU in the past to determine the impacts from large scale fuel reduction activities (see LTBMU website archive of monitoring reports). The results of previous monitoring efforts were inconclusive due to the large variability in water quality parameters daily, seasonally, and annually, and the difficulty with identifying a change outside of that background variability. Because fuel reduction activities are generally distributed geographically and over time (as with this project), it is difficult to detect and distinguish any changes in water quality resulting from these types of activities from other ongoing activities. The proposed monitoring for this project includes utilizing the E09 and E14 BMPEP protocols (see Chapter 4) to evaluate the implementation and effectiveness of the stream crossing replacements to ensure that erosion and sedimentation increases are not occurring. The results of these evaluations will provide information about impacts to water quality.</p>	13-22, 14-22, 15-22, 16-22
	<p>The South Shore Project does not contain any adaptive management that would ensure that significant cumulative impacts to water quality or beneficial uses will be avoided.</p> <p><u>Response:</u> Additional language about adaptive management, and how project components may be adjusted based on monitoring results, has been added to Chapter 4.</p>	13-23, 14-23, 15-23, 16-23

Subject	Comment and Response	Commenter-Comment#
	<p>Monitoring for impacts to beneficial uses is inadequate....the South Shore Project has the potential for significant adverse effects on Beneficial Uses listed in the Basin Plan, including impacts to riparian habitat. The Project lists numerous BMPs and design details intended to avoid such impacts. See e.g., DEIS/DEIR, Appendices C-D. However, there is no monitoring required to ensure that these BMPs/features are adequate to avoid impacts to Beneficial Uses.</p> <p><u>Response:</u> Chapter 3 of the FEIS (Water and Riparian Resources) describes how project design has reduced the potential effects to beneficial uses to less than significant. The required monitoring which includes implementation, effectiveness, and forensic monitoring detailed in Chapter 4 will indicate whether BMPs and resource protection measures are implemented and working as prescribed, thereby indicating whether beneficial uses are protected. The BMPEP (as described in Chapter 4) was developed specifically for the protection of water related beneficial uses from non-point source contaminants. The BMPs and resource protection measures are primarily acting as source control, preventing impacts from occurring, rather than as treatment of impacts already incurred. Furthermore, the FEIS acknowledges the importance of stream temperature for sustaining aquatic biotic communities and incorporates stream shade and temperature elements as required monitoring to track the level of impact, if any.</p>	13-21, 14-21, 15-21, 16-21
	<p>Positive results on a single test project does not ensure that all similarly situated projects will avoid adverse impacts to water quality. The DEIS/DEIR in places suggests that certain types of activities will not have significant adverse effects to water quality based on staff review. See e.g., DEIS/DEIR (p. 2-19) (stating that South Shore SEZ stands that exhibit equal or less sensitivity than the Heavenly Valley Creek SEZ demonstration project (HSEZ) site based on the sensitivity rating system (Appendix D) would be treated with ground based equipment under operable soil moisture conditions.)</p> <p><u>Response:</u> The Heavenly Valley Creek demonstration project was specifically designed to indicate environmental effects for other areas. In addition, since the release of the DEIS/DEIS, another soil quality monitoring effort was completed by the LTBMU in an SEZ unit in the Roundhill Fuels Reduction Project Area. The Monitoring Report that resulted from the Roundhill Project soil quality monitoring has been included by reference in the Chapter 3 Water and Riparian Resources effects analysis for the FEIS. The results from both studies show no significant adverse impacts to soil or water resources. The determination of SEZ sensitivity to mechanical treatments, and the comparison of that sensitivity to the HSEZ site, was made based on a rating system developed in close collaboration with TRPA and Lahontan Water Board, specifically for the South Shore project. The rating results have been documented, along with the rationale for each rating. In addition, implementation, effectiveness, and forensic monitoring would be used (as described in Chapter 4) to validate that use of this rating system is adequate to protect SEZs and surface water features from mechanical treatment impacts.</p>	13-20, 14-20, 15-20, 16-20
	<p>Monitoring based solely on TOC values does not ensure that water quality impacts will be avoided. As discussed, the Project will require BMP forensic and effectiveness monitoring for only 3 out of 18 watersheds draining to the Basin, yet activities planned for the 15 watersheds clearly pose risks of contributing sediment and nutrient discharge to the Lake.</p> <p><u>Response:</u> Based on comments and further collaboration between the LTBMU and Lahontan Water Board we refined our monitoring approach. Rather than using the triggers described in the DEIS, other criteria such as the relative potential risk for impacts, were used to select sites for additional BMPEP monitoring (See Chapter 4). The monitoring proposed for this project is designed to indicate whether resource protection measures and BMPs are sufficiently protective in all project watersheds.</p>	13-19, 14-19, 15-19, 16-19
	<p>The project does not adequately describe how water quality will be regulated in this project....In sum, the Project appears to leave out discussion of a critical variable, which is how water quality regulation will occur in the future years of this project, and how, or even whether, there will be any regulatory oversight of the Forest Service's activities.</p> <p><u>Response:</u> The Lahontan Water Board and the TRPA will provide the regulatory oversight and permitting for this project appropriate to their authorities as described in Chapter 1, Permits, and Coordination.</p>	13-18, 14-18, 15-18, 16-18

Subject	Comment and Response	Commenter-Comment#
	<p>At this time, both Lahontan and TRPA are committed to achieving Basin Plan water quality objectives for the Lake through the adoption of Total Maximum Daily Loads ("TMDLs"). However, Lahontan's current TMDL process assumes a particular load allocation for timber and other vegetation management activities that does not assess the potential load increases that will be caused by the 6,000 fuel reduction projects on approximately 68,000 acres over the next 10 years. Further, the current TMDL documents assume a level of protection to water quality from vegetation management activities that is based on the conditions set forth in the 2007 Waiver. However, the proposed project eliminates these conditions, including those for monitoring and protection of sensitive habitats. Thus, the current assumptions on which Lahontan and TRPA are proceeding as to how TMDLs will lead to the achievement of water quality objectives are no longer valid.</p> <p><i>Response:</i> The project as proposed, including the resource protection measures and monitoring (Chapter 4), adequately protects sensitive habitats as described in Chapter 3, Environmental Consequences. The modeling used to construct the TMDL and the conditions included in the 2007 Timber Waiver (the 2007 Timber Waiver has been superseded by the 2009 Timber Waiver) are outside the scope of this project. The South Shore project does not "eliminate" the conditions of the Timber Waiver.</p>	13-5, 14-5, 15-5, 16-5
	<p>Another serious adverse impact of forest harvesting and fuel reduction activities is the potential to increase nutrient inputs to aquatic systems (i.e., nitrogen loading), which can have an eventual impact on surface water quality and biotic response (Hazlett, et al., 2006). Hazlett also observed increases in nitrogen movement from terrestrial portions of a watershed in boreal forests of northeastern Ontario into surface waters that occurred several years after the forest harvesting/management activity took place.</p> <p><i>Response:</i> Publications by Hazlett et al. specifically look at nutrient loading in boreal forests of Canada that have been clearcut or other overstory removal/regeneration objective applied to them. In those cases, nutrients such as nitrogen become abundant in high amounts. However, in stark contrast, selective forest thinning prescriptions which will be implemented in South Shore project generally retain larger trees, as well as a mix of smaller diameter desired tree species. Retained trees would then be available to use such nutrients in the post-thinned condition in addition to other shrub species that tend to come in after such ground disturbance. The benthic communities in stream systems are also utilizing nutrients in the form of natural detritus inputs (organic matter, such as leaves, needles, etc.). Any increases in organic material may increase a portion of the aquatic invertebrate species assemblage, such as collector-gathers and/or shredders and are an important foraging base to fish. Kreutzweiser et al. 2005 observed that selective harvest coupled with similar BMPs and other resource protection measures resulted in no harmful alterations to stream habitat and aquatic insect communities.</p>	13-14, 14-14, 15-14, 16-14

Subject	Comment and Response	Commenter-Comment#
	<p>The South Shore Projects discusses using “lighter” ground based equipment in stream zones as a means to avoid environmental impacts. In the past, Lahontan has defended the use of mechanical equipment in stream zones up to 10 pounds per square inch (psi) on granitic soils and 13 psi on non-granitic soils. In my opinion, even the use of lighter vehicles has the potential for significant impacts.... The focus on psi is similar to the approach taken by the South Shore Project on monitoring, which focuses the concern on the relative impermeability of the soil.soil impermeability is only one factor to consider in whether fuel reduction activities has the potential to discharge sediment to streams. In my opinion, the most important focus is what the equipment is actually doing in the stream zone that could cause impacts. Too much emphasis is placed on potential changes in permeability rather than assessing all processes that could deliver sediment to the stream and route it to Lake Tahoe. Current research supports these findings that vegetation management activities have the potential for significant impacts to both water quality and SEZ habitat. For example, mechanical treatments in forests can produce negative ecosystem effects such as soil disturbance and compaction, disruption of nutrient cycling, damage to residual trees, and enhancement of root pathogens (Stephens and Moghaddas, 2005).</p> <p><u>Response:</u> We were unable to identify which Stephens and Moghaddas, 2005 paper the commenter is referring to, there are several. We agree that what the equipment is doing in the SEZ is of primary importance. For that reason, we have limited mechanized SEZ treatments to areas with equal or lower risk than the Heavenly SEZ Demonstration Project (Appendix C) and have a special section of resource protection measures to protect SEZs. These resource protection measures reduce the potential effects to SEZs and water quality to less than significant. Potential effects of soil disturbance and compaction are also discussed in the Geology and Soil Resource and Water and Riparian Resources sections of Chapter 3.</p>	13-13, 14-13, 15-13, 16-13
	<p>Collins also notes: It is common knowledge and well documented in the literature that ground-based equipment in sensitive stream zone areas has the potential to cause erosion and sediment discharge. This is why protected stream zones were created. The Project proposes two techniques here, whole tree yarding and accompanying skidding of larger logs, and cut to length operations. Here, each of these activities has the potential for water quality impacts. For example, large vehicles may dislodge substantial amounts of soil and mechanically disturb cast areas of the subsurface soil structure, particularly near the banks of streams. When a vehicle such as a loader or forwarder pivots in the soil, it can create sources of sediment production. The skidding of logs – typically part of the whole tree logging operation – also has the potential to expose bare soil and create pathways for surface runoff to concentrate and erode the soil. When this happens within a stream zone, sediment is likely to be discharged into the stream during the next storm or runoff event. Limits on tire pressure that minimize soil compaction do not necessarily mean that there will not be sediment production and supply to the stream. Disturbed bare soils do not require compaction to generate sediment as indicated by studies from Booker et al (1993).</p> <p><u>Response:</u> Whole tree yarding and skidding of logs is not proposed in SEZs. As a result of interagency discussions and public comments, additional buffers for WT units were added to the FEIS to prevent sediment delivery to streams and other water bodies. The project proposes to use CTL systems only in selected SEZs with a risk rating equal to or less than the Heavenly SEZ Demonstration Project (Appendix C), in combination with resource protection measures and BMPS to provide water quality protection. The use of CTL systems in SEZs, as proposed in this project, have been successful in preventing sediment delivery to channels in both the HSEZ and Roundhill SEZ projects. See Chapter 2 resource protection measures for Soil, Water and Riparian resources, and see Appendix B for project BMPs.</p>	13-12, 14-12, 15-12, 16-12

Subject	Comment and Response	Commenter-Comment#
	<p>Overall, the DEIS/DEIR states that discharges will be “minimized” by the implementation of best management practices and design features for the Project. The DEIS/DEIR’s findings regarding the potential for pollution discharge due to fuel reduction activities in sensitive areas is supported by the Declaration of Laurel Collins, which notes:....working in the Sierra Nevada, I have observed that the logging activities on steep slopes and within stream zones have the potential to discharge substantial amounts of sediment. This is particularly true where heavy equipment is used, especially in areas with decomposed granitic bedrock and/or granitic soils that have abundant fine sediment, often referred to as grus. Following fire, but even before the first rainfall, natural sediment supply rates into streams can be quite high from dry ravelling of soil from the inner gorge of 3 stream canyons. Once rainfall occurs, especially in areas that have hydrophobic soils, pervasive rill networks from [sic] occur over vast portions of the hillsides, providing a supply of fine surface soils to the stream network. Without effectiveness and forensic monitoring, these natural geomorphic responses might be difficult to distinguish from man-related project causes in areas that are treated for post fire erosion control.</p> <p><i>Response:</i> Mechanized equipment would not be used on steep slopes. Use of mechanized equipment in stream zones would only take place in areas with an equal or lower risk rating than the Heavenly SEZ Demonstration Project (Chapter 2 resource protection measures). Soils in the project area are generally coarse textured, with low percentages of fines (Chapter 3, Geology and Soil Resource section, Existing Conditions). The definition of grus does not mean soils with abundant fine sediment. This project does not propose to treat areas that are being treated for post fire erosion control. Chapter 4 has been updated to clarify that it includes both forensic and effectiveness monitoring.</p>	13-11, 14-11, 15-11, 16-11
	<p>The TMDL PROR makes an assumption that relatively undisturbed forested upland areas will not contribute substantially to overall sediment loading due to the existing restrictions on logging on steep slopes and in SEZs....the South Shore Project changes this calculation by allowing for mechanical treatments without the forensic and effectiveness monitoring as previously required by Lahontan based on the relative environmental risk of the fuel reduction activity. These changes will be also exacerbated by the new 2008 and 2009 Waivers that Lahontan has recently adopted for the Basin, which also reduce the level of monitoring previously required at high risk sites.</p> <p><i>Response:</i> As stated in the TMDL PRO report, the undeveloped forest lands in general are characterized by limited erodibility, high infiltration rates, sustainable soil nutrient conditions, and severely overstocked fuels with high stand densities. The South Shore project limits whole tree methods to the most accessible, resilient areas to reduce impacts. No equipment use on steep slopes (greater than 30%) is proposed in the South Shore project. In addition, the South Shore project would include both forensic and effectiveness monitoring as clarified in Ch. 4 of the FEIS. Assessment of consistency with PRO Report conclusions is outside the scope of this analysis.</p>	13-7, 14-7, 15-7, 16-7
	<p>The TMDL Pollutant Reduction Opportunity Report (“TMDL PROR”) (2007) is referred to in the DEIS/DEIR, which incorrectly states the report recommendation regarding loading from timber activities. “The recommendation from the TMDL researchers is to maintain current practices employed by the FS for forest management, including standard BMPs, and incorporate decommissioning roads and landings to the extent feasible.” (p. 3-99) The final recommendations included no such language (See TMDL PROR (March 2008) p.205-6.</p> <p><i>Response:</i> Since the release of the DEIS/DEIR, the Lake Tahoe TMDL has been finalized and the reference to its findings have been incorporated in place of the reference to the PROR for the FEIS. Refer to the Water and Riparian Resources section in Chapter 3 for more details.</p>	13-6, 14-6, 15-6, 16-6

Subject	Comment and Response	Commenter-Comment#
	<p>The Basin Plan requires protection of a number of beneficial uses, including 22 beneficial uses specifically identified in the 2007 waiver as potentially affected by timber activities and waiver conditions, including Preservation of Biological Habitats of Special Significance (BIOI), Cold Freshwater Habitat (COLD), Commercial and Sport fishing (COMM), Flood Peak Attenuation/Flood Water Storage (FLO), Freshwater Replenishment (FRSH), Ground Water Recharge (GWR), Migration of Aquatic Organisms (MIGR), Municipal and Domestic Supply (MUN), Rare, Threatened, or Endangered Species (RARE), Spawning, Reproduction, and Development (SPWN), Wildlife Habitat (WILD) and Water Quality Enhancement (WQE). The 2007 Waiver noted that all of these beneficial uses could be adversely affected by timber activities including the fuel reduction activities proposed in the South Shore Project.</p> <p><u>Response:</u> Chapter 3 of the FEIS (Water and Riparian Resources) describes how project design has reduced the potential effects to beneficial uses to less than significant. The uses that have the highest risk for effects from this project are discussed in detail, and the resource protection measures and monitoring elements proposed to prevent impacts are also described in Chapters 2 and 4 respectively.</p>	13-16, 14-16, 15-16, 16-16
	<p>The South Shore Project monitoring plan is inadequate to meet waiver requirements.</p> <p><u>Response:</u> Chapter 4 has been clarified and updated to address both public and agency comments. Consistency with the current Timber Waiver will be evaluated during the permitting process for the portions of the project eligible for enrollment in the Waiver.</p>	13-24, 14-24, 15-24, 16-24
	<p>The DEIR/DEIS also does not provide an adequate discussion of the relevant environmental setting regarding the current status of the Lake's impaired waters, and what must be done to restore water clarity. TRPA's 2006 Threshold Evaluation (TRPA, 2007), for example, showed only 25% of the threshold indicators were meeting threshold standards and water quality is one of the threshold categories that has not been successfully attained. The primary causes for the degradation of water quality are thought to be an increased flux of sediments and nutrients into the lake. Sources of nutrients and sediments have been identified including atmospheric deposition, stream loading, direct runoff, ground water, and shore zone erosion (Murphy and Knopp, 2000).</p> <p><u>Response:</u> Restoration of clarity to Lake Tahoe is outside the scope of this project. Protection of water quality is thoroughly considered in the analysis (Chapter 3, Water and Riparian Resources section), and an extensive list of resource protection measures and BMPs (Chapter 2 and Appendix B) is provided to mitigate potential effects to a less than significant level and to ensure that water quality is maintained. In addition, Chapter 2 details improvements to three stream crossings that would reduce existing impacts, including ongoing sedimentation. The environmental effects of improving these three stream crossings are disclosed in Chapter 3, Water and Riparian Resources section under stream channel conditions. Sediment decreases are anticipated by the end of the project due to installation of BMPs, along with closing and rehabilitation of roads and landings.</p>	13-4, 14-4, 15-4, 16-4

Subject	Comment and Response	Commenter-Comment#
	<p>The project does not correctly analyze the cumulative impacts of this project to water quality and beneficial uses in the Tahoe basin. The South Shore Project's analysis of cumulative impacts under CEQA and NEPA is inadequate for several reasons. The Project is part of a larger project covering 68,000 acres scheduled to occur in the next decade. See USDA LTBMU 2007 (Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy.... The Project permits a host of activities that have the potential and will increase pollutant discharges into the Tahoe Basin, a 303(d) listed waterbody for sediment and nutrients. However, the DEIS/DEIR has not considered the potentially significant impacts of this overall project as part of its cumulative impact analysis. In particular, CEQA requires the lead agencies to adopt all feasible mitigation to avoid or substantially lessen potentially significant impacts. Here, the DEIR/DEIS has not made this calculation because it has assumed that overall cumulative impacts will not be significant.</p> <p><i>Response:</i> The rationale for the spatial and temporal scale of the cumulative effects analysis for water quality and beneficial uses is described in Chapter 3 Water and Riparian Resources section under the CWE Analysis Methodology and Existing CWE Conditions sections. The analysis area boundary for water and riparian resources encompasses the full extent of all watersheds that include treatment units. The cumulative effects analysis includes past, present, and reasonably foreseeable future management activities in conformance with NEPA. In response to comments, the CWE analysis in the FEIS was revised to include other agency fuels reduction projects within the South Shore analysis area (Appendix A).</p> <p>As described in Chapter 3, the alternatives, including the resource protection measures and BMPs, do not result in increases in pollutant discharges to Lake Tahoe.</p> <p>The Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy is not a project and does not identify site-specific actions or consequences and was not included in the analysis.</p>	13-2, 14-2, 15-2, 16-2
	<p>The DEIS/DEIR (at p. 3-87) acknowledges that Lake Tahoe is a Section 303(d) listed waterbody for sediment and nutrients, but does not incorporate this information into its cumulative impact analysis. Under both NEPA and CEQA, additional incremental impacts to an already degraded waterbody constitute a significant impact, yet the Project documents do not acknowledge this fact and instead claim that impacts to water quality will be insignificant because discharges will be —minimized by design features and best management practices. This does not mean that significant cumulative impacts are being avoided, however, because under law incremental impacts to an existing significant impacts must also be considered significant.</p> <p><i>Response:</i> The language has been clarified in Chapter 3. Any potential increases in sediment delivery resulting from South Shore project treatments will be minimal and will not be measurable when considering background levels. The resource protection measures and BMPs detailed in Chapter 2 and Appendix B will primarily act as source control, limiting erosion and subsequent sediment delivery. Because sediment delivery increases will be undetectable above background levels, no cumulative effects to water quality are expected.</p>	13-3, 14-3, 15-3, 16-3
	<p>[See comments of letter writer 13]</p> <p><i>Response:</i></p>	14-21
	<p>[See comments of letter writer 13]</p> <p><i>Response:</i></p>	14-10
	<p>[See comments of letter writer 13]</p> <p><i>Response:</i></p>	14-20
	<p>[See comments of letter writer 13]</p> <p><i>Response:</i></p>	14-19
	<p>[See comments of letter writer 13]</p> <p><i>Response:</i></p>	14-18
	<p>[See comments of letter writer 13]</p> <p><i>Response:</i></p>	14-23

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	[See comments of letter writer 13] <u>Response:</u>	16-18
	[See comments of letter writer 13] <u>Response:</u>	16-12
	[See comments of letter writer 13] <u>Response:</u>	16-17
	[See comments of letter writer 13] <u>Response:</u>	16-13
	[See comments of letter writer 13] <u>Response:</u>	16-5
	[See comments of letter writer 13] <u>Response:</u>	16-23
Wildlife		
	<p>...the DEIS proposes far more intensive logging than is necessary to achieve fire/fuel objectives, including much more severe degradation of spotted owl nesting/roosting habitat than necessary (resulting in a net loss of over 3,000 acres of nesting/roosting habitat....while the DEIS acknowledges that spotted owls will be harmed by the proposed logging, the DEIS does not adequately analyze the impacts of the proposed massive basal area reductions on spotted owls outside of PACs and HRCAs (as the DEIS acknowledges, most of an owl's biological home range is outside of the PAC/HRCA). For nesting/roosting habitat, spotted owls need basal area of more than 185 square feet per acre, and depend upon having about 6-8 large snags per acre in their home ranges to maintain adequate prey (Verner et al. 1992). The DEIS states that basal area will be severely reduced (essentially cut in half) down to 100-150 square feet per acre. Not only will this reduce basal area in the owls' biological home ranges far below suitability, but it will also severely reduce potential to maintain adequate large snag densities for the owls.</p> <p><u>Response:</u> The South Shore project is entirely within the Wildland Urban Intermix (WUI), as explained by the Purpose and Need in Chapter 1. Thinning to provide a reduction in the risk of high-intensity wildfire for homes, schools, and communities in a manner that also provides a healthier forest over the long term is the major objective for the project. To better balance these purposes and needs with CA spotted owl habitat needs, coordinated prescriptions were developed by the silviculturist and wildlife biologist to retain canopy cover, snags, and large down logs to meet suitable owl habitat within PACs/HRCAs and throughout proposed WUI treatment area, as detailed in Chapter 2, Treatment Prescriptions. The LTBMU Forest Plan (as amended) does not require meeting owl specific habitat requirements outside of the PACs/HRCAs. The owl habitat would be protected both by the wildlife prescription and the reduced risk of crown fire migration from adjacent areas. As described in the FEIS, Alternative 2 would result in more suitable acres of high and moderate capability spotted owl habitats (CWHR modeling) than Alternative 3. Alternative 3 would also increase predicted acreages of suitable habitats compared to the existing condition, while reducing the number of acres mechanically treated within HRCAs in comparison to Alternative 2. Chapter 3 discloses the effects of the project, with the finding that the project would not lead toward a trend for listing the spotted owl as threatened or endangered.</p> <p>In addition, Verner et al. (1992) cautions against applying habitat association patterns to a general characterization of nesting, roosting, and foraging habitat. Therefore, an across the board application of 185 square feet per acre basal area is not uniformly applied in every vegetation type scenario.</p>	1-23

Subject	Comment and Response	Commenter-Comment#
	<p>The DEIS fails to adequately analyze the adverse impacts to the cavity-nesting species, including Species at Risk, identified above, due to a further reduction in large snag densities immediately post-implementation and in the future as a result of this project. This analysis is crucial to an understanding of the impacts of this project on cavity-nesting species.</p> <p><u>Response:</u> <i>Effects to cavity-nesting species and their habitats are presented in the project Management Indicator Species (MIS) Report, particularly in the sections addressing snags in green forest and snags in burned forest. General effects to wildlife species include certain cavity-nesting species tied to the Regional Forester's Sensitive Species List and the MIS analysis, presented in the wildlife sections of Chapter 3 and in the project Biological Evaluation for Terrestrial Wildlife. Refer to response 1-21.</i></p>	1-22
	<p>This project would harm MIS and SAR species for which annual population monitoring is required by App. E of the 2001 Framework, but for which no such monitoring has been conducted. As such, the project cannot proceed unless either the required monitoring is conducted, or it is substantially redesigned such that it will not harm habitat for these MIS and SAR species....Moreover, the recent MIS amendment of the 2004 Framework forest plan is illegal under NEPA and NFMA, and does not relieve the USFS of the requirement to conduct annual population monitoring of specified MIS and SAR under App. E. Such species include, but are not limited to, the following: Olive-sided Flycatcher, Swainson's Thrush, the Silver-haired Bat and Long-legged Myotis (bat), Black ear, Pileated Woodpecker, Red-breasted Sapsucker, and Williamson's Sapsucker.</p> <p><u>Response:</u> <i>Under the 2007 Sierra Nevada Forests Management Indicator Species Amendment (MIS Amendment) populations are monitored at the Sierra Nevada bio-regional scale, which the USFS Pacific Southwest Regional Office conducts. Effects to MIS habitats are addressed at the project scale (see Chapter 3 of the FEIS). The MIS Amendment Record of Decision (ROD) is also clear that "the sole MIS requirement that is applied at the project-level is the assessment of habitat for MIS. There are no MIS monitoring requirements in the project area or at the project level." (MIS Amendment ROD, pg. 11). Species at Risk (SAR) are not part of any monitoring requirement under the 2007 MIS Amendment. Project-specific effects to the species identified in your comment are evaluated through representative species' habitats in the project MIS Report as described below. The project Biological Evaluation (BE) also provides applicable evaluation of general and species-specific effects relevant to the species identified in your comment.</i></p> <ol style="list-style-type: none"> <i>1. Olive-sided flycatcher: MIS Report (riparian, late-seral open-canopy coniferous forest, and late-seral closed-canopy coniferous forest habitats) and BE (effects of action alternatives)</i> <i>2. Swainson's thrush: MIS Report (riparian habitat) and BE (effects of action alternatives)</i> <i>3. Silver-haired bat: MIS Report (riverine, riparian, and early-seral coniferous forest habitats) and BE (effects of action alternatives and effects to Townsend's big-eared bat)</i> <i>4. Long-legged myotis: MIS Report (riverine, riparian, and early-seral coniferous forest habitats) and BE (effects of action alternatives and effects to Townsend's big-eared bat)</i> <i>5. Black bear: MIS report (riparian, wet meadow, and early-seral coniferous forest habitats) and BE (effects of action alternatives)</i> <i>6. Pileated woodpecker: MIS Report (late-seral closed-canopy coniferous forest and snags in green forest habitats) and BE (effects of action alternatives and effects to similar California spotted owl habitat)</i> <i>7. Red-breasted sapsucker: MIS Report (riverine, riparian, early- and mid-seral coniferous forest, and snags in green forest habitats) and BE (effects of action alternatives)</i> <i>8. Williamson's sapsucker: MIS Report (mid-seral coniferous forest, late-seral open-canopy coniferous forest, and snags in green forest habitats) and BE (effects of action alternatives)</i> 	1-21

Subject	Comment and Response	Commenter-Comment#
	<p>The project documents fail to acknowledge that patches of high severity fire are natural in these ecosystems, and that many plant and animal species depend upon such habitat (Hanson 2007, Hutto 1995, Hutto 2006, Noss et al. 2006). In fact, peak levels of native diversity in higher plants and wildlife species is found in patches of conifer forest burned at high severity which have not been managed (logged) (Noss et al. 2006). While we agree that we want to prevent high severity fire from occurring adjacent to homes for public safety reasons, the suggestion that mixed-severity fire effects are damaging to forest ecosystems is flatly inaccurate ecologically. Please explain your suggestion that wildland fire is an ecological threat....</p> <p><i>Response:</i> The project treatment area is limited to the Wildland Urban Interface (WUI) (Chapter 1 and 2). The FEIS discloses the use of burned forest by wildlife in the Terrestrial Wildlife and MIS sections of Chapter 3. In addition, Chapter 3 of the FEIS also discloses the potential impacts for other terrestrial species from a potential wildfire scenario involving variable severities and impacts to wildlife habitat and sensitive plants. While we recognize that burned forest offers habitat to some species, it also eliminates habitat for species that thrive in unburned forests. Managing to provide for burned forest is not an objective of this project and does not fit within the goals of providing for public and firefighter safety within the WUI.</p>	1-15
	<p>The effects of roads on aquatic habitat are believed to be widespread, although direct...At the landscape scale, correlative evidence suggests that roads are likely to influence the frequency, timing, and magnitude of disturbance to aquatic habitat. Increased fine-sediment composition in stream gravel-a common consequence of road-derived sediments entering streams- has been linked to decreased fry emergence, decreased juvenile densities, loss of winter carrying capacity, and increased predation of fishes and can reduce benthic organism populations and algal production.</p> <p><i>Response:</i> The FEIS discloses potential impacts which could result from any increases in fine sediment. Drainages, such as the lower reaches of the Upper Truckee River, Trout Creek and Cold Creek are sand-bed streams, as fine particles, such as sand is what is naturally being produced and mobilized in those subwatersheds (although undoubtedly fine sediment impacts have occurred from past/current urbanization influences). Regardless, the FEIS recognizes that any additional inputs of fine sediment may result in aquatic habitat impacts, such as pool filling. However, fine sediment generation from roads is usually the result of less-than-optimal road attainment standards (i.e. lack of proper floodplain relief drainage, drainage persistence across road prisms, undersized culverts, etc.). The combination of design features for Transportation and Aquatic Wildlife found in Chapter 2 along with BMP implementation would minimize the effects that roads may have on aquatic habitat.</p>	13-15
	<p>At the landscape scale, increasing road densities and their attendant effects are correlated with declines in the status of some non-anadromous salmonid species.Several studies correlate road density or indices of roads to fish density or measures of fish diversity. Mechanisms include effects of fine sediment, changes in streamflow, changes in water temperature caused by loss of shade cover or conversion of groundwater to surface water, migration barriers, vectors of disease, exotic fishes, changes in channel configuration from encroachment, and increased fishing pressure.</p> <p><i>Response:</i> The Access and Travel Management plans (ATMs) in the South Shore area would set the post-project use for all routes used by the project. Because there is no new permanent road construction, there would be no increase in road density caused by the project. Because roads used by the project would be either decommissioned or returned to their specified ATM use category, no increase in fishing pressure due to road access is expected. Resource protection measures and BMPs would minimize fine sediment. No change in stream temperature is expected from the project, as is disclosed in the Chapter 3 Aquatic Wildlife section. Resource protection measures include retention of trees to provide shade and stream bank stability, and are found in the Chapter 2 Aquatic Wildlife section. Disease vectors and exotic fish are beyond the scope of this project, and are not expected to be a consequence of implementation.</p>	13-35
[See comments of letter writer 13]	<i>Response:</i>	14-1
[See comments of letter writer 13]	<i>Response:</i>	14-7

Lake Tahoe Basin Management Unit

Subject	Comment and Response	Commenter-Comment#
	[See comments of letter writer 13] <u>Response:</u>	14-15
	[See comments of letter writer 13] <u>Response:</u>	15-15
	[See comments of letter writer 13] <u>Response:</u>	16-2
	[See comments of letter writer 13] <u>Response:</u>	16-15
* End *		

Commenters' identification (to comment number)

ID #	Commenter	Affiliation
1	Chad Hanson, PhD	Director, John Muir Project
2	Kathleen Goforth	Environmental Review Office, U.S. Environmental Protection Agency
3	Mike Vollmer	Principal Vegetation Program Manager, Tahoe Regional Planning Agency
4	Joanne Howard	President, Echo Lakes Association
5	Patricia Sanderson Port	Regional Environmental Officer, Office of Environmental Policy and Compliance, U.S. Dept. Interior, Office of the Secretary
6	Jonathan F. Hoefer	California RPF #276
7	Mark & Rebecca Novak	Interested Public
8	Jennifer Johnson	Environmental Protection Dept., Washoe Tribe of Nevada and California
9	Mark Novak	Battalion Chief - Fuels Management, Tahoe Douglas Fire Protection District
10	Bill Holmes	Chief, Cal Fire Alpine-Amador-El Dorado-Sacramento Unit, California Department of Forestry and Fire Protection
11	Gerald & Kristine Brooks	Cabin owner, Bridge Tract
12	Rich Fairbanks	Forest and Fire Program Associate, The Wilderness Society
13 *	Mike Graf	Sierra Forest Legacy
14 *	Craig Thomas	Sierra Forest Legacy
15 *	Carl Young	League to Save Lake Tahoe
16 *	Jennifer Quashnick	Tahoe Sierra Club
17	Mary Ann Morris	Cabin owner, Bridge Tract
18	Gregory & Judy Thomas	Cabin owners, Bridge Tract
19	Lorena Herrig	Cabin owner, Bridge Tract
20	Tony Appleby	Cabin owner, Bridge Tract
Note: * denotes cosignatories on single comment letter		